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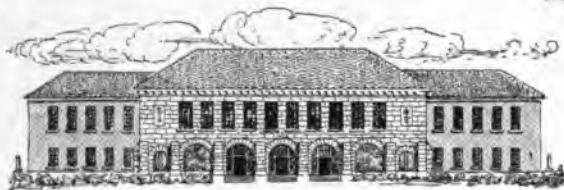
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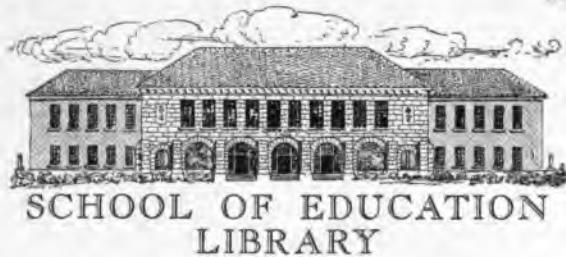
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A QUARTERLY

INTERNATIONAL RECORD OF EDUCATIONAL LITERATURE  
INSTITUTIONS AND PROGRESS

EDITED BY

G. STANLEY HALL

President of Clark University and Professor of Psychology and Education

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VOL. XV

1908

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WORCESTER, MASS.

FLORENCE CHANDLER, PUBLISHER

ANALYSIS  
ROMANCE THAT OF A  
VILLAIN

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THE COMMONWEALTH PRESS  
O. B. WOOD  
WORCESTER, MASS.

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THE  
PEDAGOGICAL SEMINARY

Founded and Edited by G. STANLEY HALL

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VOL. XV

MARCH, 1908

No. 1

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ON THE EDUCATION OF BACKWARD RACES  
A PRELIMINARY STUDY

By ERNEST W. COFFIN, Fellow in Psychology, Clark University

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I. INTRODUCTION

The intercourse of stronger and more advanced with weaker and more primitive races has been marked progressively by features corresponding, first, to merely physical contact, in which brute force hewed a way for trade and commerce; later, to empire and colonization, with more lasting psychic

influence; and, more recently still, to systematic educational effort, wherein the dominant power sought to engraft its culture upon its dependencies. While, of course, these stages cannot be marked by definite periods, they serve to indicate a natural line of review in treating of some of the questions arising from racial intercourse. It is the purpose of this paper, after briefly reviewing the conditions and results of the earlier phases, as exemplified in some of the best known fields of colonial enterprise, and discussing more fully the present state of educational effort, to enquire into the methods best suited for the advancement of stagnant and backward races, in the light of the best researches of psychology and anthropology.

## II. ON THE PSYCHIC UNITY OF THE RACE

Even at the present day it is urged by many writers that certain races, because of their essential inferiority, their almost sub-human, or, at least, sub-Caucasian, mental endowment, are incapable of receiving more than a veneer of any higher culture. The question of the psychic unity of the human race is still an open one, and waxes warmest in this country, naturally, over the African. While it cannot here be discussed at length, mere mention may be made of the facts that seem overwhelmingly to argue against intrinsic difference. Many investigators, such as Peschel, Darwin, Haddon, de Quatrefages, and others, cite the prevalence, in widely sundered regions, of such customs as counting on the fingers, gesture-language, ratification of friendship by exchange of names, building of memorial cairns, couvade, and the widespread practice of circumcision. Darwin particularly emphasizes (*Descent of Man*, Pt. I, c. 7) the similarity between the races of man as shown by the universal pleasure afforded by the same amusements and by bodily decorations, as well as by the fact that the same emotions are similarly expressed in face, gesture, and cry, whereas different species of monkeys respond to the same stimulus quite differently. So, too, as to language, the essential point being not any particular form or derivation of speech, but the mere capacity for articulate expression of thought. Nor are even classifications according to cranial measurements decisive, for under the same cephalic index are grouped peoples that none would equate in other respects; as, for example, Bretons and Kalmucks, Turks and Javanese; while, on the other hand, in Scotland and in Switzerland, with races so similar in many respects, the cranial proportions are different enough to justify separate classification. No more can alleged pathological variations afford a final answer. The negro, for example, is generally found to be immune to yellow fever, but very susceptible to cholera, tuberculosis, epilepsy,

and venereal diseases. A recent epidemic of varioloid in the West Indies, under the writer's observation, left the whites untouched, but affected alike the blacks and the colored, even the lightest mulattoes. But pure whites of more than a very few generations of tropical residence are rare, so that there is reason to believe that such differences are mainly climatic and environmental. And in these islands, moreover, is found extensive refutation of the theory of non-fertility of crossed races; for, despite the enormous infant mortality, the colored population is steadily on the increase, and, under fair conditions, shows good average mentality. But of this latter point again. Darwin long ago showed the worthlessness of those testimonies of travellers and traders to the effect that Australian and Tasmanian women rarely bore children to European men. "The half-castes," he tells us (*loc. cit.*), "are killed by the pure blacks; and an account has lately been published of eleven half-caste youths, murdered and burnt at the same time, whose remains were found by the police."

As to morals and religion among savages, we may choose between the denials of any trace thereof by travellers and traders whose observation must needs have been superficial, and the sanguine affirmations of more profound students who perhaps have not escaped the danger of "reading into" the savage psychology much that was merely subjective. However, as the facts referred to later will show, there has been much confusion of standards and much misunderstanding of points of view. Beyond doubt, many savage races have a well defined notion of property rights, of chastity, and of connubial fidelity. Careful investigators have rarely failed to find ultimate, conceptions of a deity, but religion and morals pertain, in the native mind, even more than with us, to different realms.

In general, that we, as educators of backward races, are not justified in setting out with *a priori* notions of their mentality is implied in the conclusions of Professor Boas.

"Our considerations," he says, "make it probable that the wide differences between the manifestations of the human mind in various stages of culture may be due almost entirely to the form of individual experience, which is determined by the geographical and social environment of the individual. It would seem that in different races the organization of the mind is on the whole alike, and that the varieties of mind found in the different races do not exceed, perhaps not even reach, the amount of normal individual variation in each race" (6, p. 460).

### III. PHYSICAL CONTACT OF RACES

Approaching the subject, then, without any foregone conclusions, we have first to note briefly the cultural effects of what we have called the physical contact of higher and lower races,

to enquire what civilization brought to paganism in its early years of expansion over sea.

The story of the *Tasmanians* is well known; how that, first introduced to the white man at the beginning of last century, they were found populous and thriving, and many worthy observers judged them by no means incapable of much development; how that they were steadily exploited and even actually hunted and shot as game; and how that, when but some ten dozen were left out of a population of several thousand, they were deported to Flinders Island, where, in 15 years, from 1832 to 1847, they decreased to 46, while during that period scarcely a dozen children were born. The last survivor died in 1876 (*Bonwick, Last of the Tasmanians*, 1870).

Though not deported, the *Maoris* of New Zealand decreased steadily from 1839, when the islands became a British Colony. In 1841 they were a vigorous people of 100,000, making a sturdy stand against the land-grabbing of the 5,000 settlers; in 1852, when a constitution was granted to the Colony, they numbered 56,000, the settlers, 27,000. The decrease has gone steadily on, and their struggle for their homes continued, until, in 1871, "the natives," says Woodward (77, p. 279), "were forced, though sullenly, to admit their defeat, and the islands have since that time had peace." Under better conditions the natives are now comparatively prosperous, and number some 35,000.

In the *Sandwich Islands*, according to Darwin's quotations (*loc. cit.*), the population decreased from some 300,000 at the time of Cook's discovery, in 1770, to some 50,000 in 1872, over 80% in a century of intercourse with civilization, and is still rapidly declining. Whether the causes were internecine war, profligacy, change in habits of clothing and diet, or what, the *Kanakas*, who were described early in the last century as the most civilized of all the Pacific Islanders, are paying with their lives for the blessings of our culture.

Romilly (66, c. 9) tells how civilization dealt with the *Melanesian* tribes; how, after the introduction of cotton into Fiji and of sugar into Queensland, the *Papuans*, *New Hebrideans*, and *Solomon Islanders* were decoyed, captured, clapped under hatches, and carried off to the new plantations, there to work for a useless pittance until they died of homesickness.

Forty years ago, according to Hunt (41, c. 4), the *Fijians* might have been considered among the finest specimens of natural manhood in the South Pacific islands. They had a high ideal of chastity, and exercised great love and care toward their children. Polygamy tended toward chastity, the same mother seldom having a child oftener than once in three or four years, and it was quite contrary to the Fijian ideas of delicacy for a man ever to remain under the same roof as his wives at night.

With the intrusion of the whites, monogamy was enforced, with distribution of the plural wives, and consequent laxity. Through punitive expeditions, and through measles, catarrh, whooping-cough and other ills attendant on the enforced change in customs, the population fell in 1874-1897 from 150,000 to 99,770, and it was found necessary to appoint, in 1893, a "committee of enquiry into physical deterioration." Moreover, monogamy, introduced so suddenly, has increased the work of the women and lessened their care of the children. To wear native clothing, to make native cloth, to make the native beverage, to smoke tobacco, to wear long hair, to wrestle, play ball, and not to wear shirt and trousers and observe Sunday puritanically, were declared offences punishable by law.

In *West Australia* Dr. Gibney, R. C. Bishop of Perth, accuses the

government at the present day, of starving the natives and expelling them from runs, of slackness in checking abuses, etc. The Chief Protector of the Aborigines replies (London 'Times,' May 17, 1907) that no evidence exists for the above charges, but that drink and immorality are destroying the natives, despite efforts of the police to check these evils. In the sixties, he says, measles destroyed more than half the population in the southern section. Wherever the blame is due, the fact remains that drink, disease, and immorality have been co-existent with European settlement, and the natives have decreased in all about 80 per cent. When the colony of Victoria was founded, the blacks were estimated at about 9,000; at the present time there are less than 800, many of which are half-castes (52, p. 349).

Similarly with the extinct Beothuks of Newfoundland, with the Hottentots and Bushmen of South Africa, the Ostiaks and Tunguses of Siberia, and the Veddahs of Ceylon. Some thirty years ago the Patagonians (60, p. 184) were said to be steadily and rapidly decreasing, and with them are perishing many interesting, and, in that clime and environment, useful and salutary customs. Even the hardy natives of British Columbia and Alaska for some years after the advent of the settler decreased in numbers, though they are now slightly on the increase. It is true that many of the races that have thus suffered in the past, as the Polynesians, are now showing signs of recovery, but the fact of the deadly effect of their earlier experiences remains.

Civilization first struck the rich *Yosemite Valley* in 1851, and its representatives were welcomed by the peaceful natives. Before long the miner's greed drove him to encroach on the native's land, and his lust to disturb the native's home. This led to retaliation in the way of stealing horses and mules for food for starving families; war finally broke out, with the inevitable result, reservation, confinement, and inoculation with all the evils, moral and physical, of the conquering race, and to-day, says Galen Clark (24, p. 19), scarcely half a dozen of the tribesmen or their children are in existence.

The whole history of the commercial and political intercourse of advanced and backward races is a story of mutual misunderstanding, and of wanton aggression and provocation, as well as of exploitation, on the part of the former. Take such cases as the following. Among the Australian bushmen, the place where the public ceremonies were performed was secret and inviolate, and "the occupation of such a place by white men," says Rusden (69, I, p. 100), "would confound a native as much as the destruction of St. Peter's or Notre Dame would outrage the feelings of Romans or Frenchmen." But profanation of such temples was a light matter in the eyes of the settlers, and reprisals followed.

Again, a certain quartz crystal venerated by the natives as a talisman, was, on pain of death, never to be shown to a woman. A settler violated this law and suffered death at the hands of a tribesman. The slayer was captured and put to death by the English hangman. To the settlers, a citizen had been murdered for tampering with "some nigger's fool stone"; to the natives, a fellow-countryman had died a martyr to the faith (69, I, p. 101).

The foreign and the native ideas of justice, too, frequently conflicted. The native, accused of crime, tells his story from his point of view, the verdict is according to the foreign interpretation of the offence, and thereafter the native is cute enough to tell a story that will bring him better luck. Among the Burmese, for instance, as among the Pondo, penalty is remedial, and the lifelong stigma our ethical code imposes is incomprehensible to the native. Hence, a foreigner in his own country, he is marked as a murderer, a liar, and a thief. No knottier problems of empire exist to-day than those due to the debasing contact of trade and colonization with the sturdy and prolific tribes of Africa, or to the supercilious contempt of western power for the sacred traditions of the Hindu. Such contact is inevitable; but that the result of this "world-process," as Bryce calls it (13, p. 8 *et seq.*), must be the reduction of the backward races to a position "analogous to that which the unskilled workers have held in each one of the civilized nations," does not necessarily follow. This implies the intrinsic and fixed inferiority we have been discussing; we have no right to assume, with the great colonial captains of industry, that the backward races of mankind are destined only to be our hewers of wood and drawers of water. A better analogy is that of a minor undergoing training for entering into his inheritance in the maturity of his powers.

#### IV. INDIGENOUS CULTURE. INDIA

Before considering the question of the educational or psychic influence of advanced upon backward races, we should naturally inquire into the life and habits of some of the best known representatives of the latter, to discover what educational material, if any, they possess, what indigenous "culture-stuff" to which the civilization of the western world may apply its best pedagogical methods. Such a line of inquiry, moreover, may reveal some of the causes which serve to retard the progress of such peoples, and thus may further lead to a formulation of some phases of the problem that confronts the educator in these fields.

No better instance of the presence, not entirely welcome and yet, on the whole, necessary and beneficial, of a dominant civilization in the midst of a highly organized primitive society sadly in need of stimulus from without, is to be found than that of the English in India. A study of conditions here is the more instructive as it represents one of the oldest and most successful enterprises of colonization, and as its methods, its successes, its failures, its crying needs, are such as are actually or likely to be, found in most later tropical undertakings.

The facts relating to early education among the Hindus

are largely drawn from Dr. W. I. Chamberlain's 'Education in India,' Dr. Leitner's Report, and Sir H. J. S. Cotton's, 'New India.'

The motive of early education in Aryan India is to be found in the Brahmanistic faith. In such a system of spiritual pantheism, setting up as the highest good absorption into the "All-One," the whole trend of teaching was negative and repressive. In the Code of Manu, dating from the 2nd or 3rd century B. C., the end of education is thus expressed: "Studying the Veda, practising austerities, the acquisition of true knowledge, the subjugation of the organs, abstention from doing injury, and serving the Guru (the spiritual teacher) are the best means for attaining supreme bliss."

In the very earliest days of Brahmanism, the Courts of the Kings were the centres of learning; but later arose colleges of Brahmins, or Parishads, which were constituted by three pandits competent to maintain and transmit the ancient philosophy and religion. To them resorted all who wished to devote their lives to learning in the Vedas. Though these schools stood for no esoteric doctrines, education was so far very select, tending to preserve and widen the breach between the priestly orders and the lower castes. It appears that the Brahmanical teaching was open to, and, in fact, incumbent upon, the next two, the soldier and the merchant, castes; but, as a general thing, since the function of priest and teacher was restricted to the Brahman, and as boys tended to follow the calling of their fathers, the schooling of the industrial classes was mainly in domestic occupations, not even the three R's being given them, it being taken for granted that what was necessary of these would be picked up in the practice of their trades.

Besides this, these lower castes secured in their village communes, instruction in the vast collection of tradition, folk-lore, and proverbs, known as the Panchatantra, dating from about 500 A. D., though reduced to writing much later. It may be interesting to quote one or two specimens of the ethical precepts contained in this body of tradition:

"Be humble, for the tender grass bows itself unhurt before the storm, while the mighty trees are shattered by it."

"Virtue, after which men ought to strive, needs a mighty effort, for a cocoanut falls not through the shaking of a crow."

"The wise man must strive to gain knowledge and wealth as if he were not subject to death, but the duties of religion he must fulfill as if death were already hovering on his lips."

All teaching, of course, was oral, and in the higher schools the pupil learned by rote from the master's recitation incredible masses of vedantic hymns and traditional lore, without being able to understand a sentence. Conformity to a strict system on the part of the teacher, and servile acceptance on the part of the scholar, characterized all these educational efforts. The unchanging past yielded its endless round of stuff for character to the enquirers of an unchanging environment, and only thus could the life of pure thought be as much as conceived. Relations of real interest and love existed between teacher and taught, and discipline was mild, blows and dousing in cold water being prescribed by Manu only as extreme measures. But any departure in thought or conduct from these traditional standards, or, when MSS. came into existence, any attempt to burrow extra-

murally, so to speak, into the sacred lore, was considered a great offence. The lowest caste received no instruction at all.

The influence of Buddhism, from about the 3rd century B. C. to the time of its decline and its exile to the north and east, was not, with its ideals of extinction in Nirvana, such as to change the course of educational thought, even had this influence been permanent. Nor was Mohammedanism, which became dominant not long after the expulsion of Buddhism, of any great effect in turning the course of this theoretical and contemplative system. These Mohammedan schools, which are said to have reached quite a high degree of efficiency in their own way, employed two learned tongues: in the elementary, the Persian, and in the advanced, the Arabic. The former were of commercial value to the Hindus, as Persian was, until 1835, the language of the law courts; but, further than that, little else than the Koran was taught. The Arabic schools, though giving courses in many branches of science, were utterly foreign in spirit as well as in tongue, and were not attended by Hindus at all.

As a result of the government enquiries conducted in the three great Presidencies 1820-1835, it was found that, in Madras, counting the teaching of girls, which was done almost altogether, if done at all, in the home, upwards of one-third of the whole population was receiving instruction; in Bombay, 35,143 pupils out of a population of  $4\frac{1}{2}$  millions, with almost no female education; and in Bengal, 13% of the children of school age were being taught at home and in school. Passing over the period of the early caste schools and Brahmanic Parishads, in more modern times, as revealed by these government enquiries, there were two classes of schools, the elementary, or Patasalas, and the Schools of Learning, or Tols. In the former, the course was usually from five to ten years of age, and the studies consisted of the alphabet, traced with the fingers in the sand, palm-leaf writing, numeration and tables of weights and measures, elements of arithmetic and mensuration, and, in the final stage, advanced arithmetic and writing on paper. These schools were patronized mostly by the commercial classes. The teachers were of the writing caste, and were very poorly paid, depending chiefly on gifts by the month or by the term.

Mr. Adam, who was delegated by Sir Wm. Bentinck, in 1835, to conduct the enquiry into native education in Bengal, says of the teachers of the schools of higher learning, and his remarks apply in general to such schools in the other provinces: "I saw men (the pundits) not only unpretending, but plain and simple in their lives, . . . inhabiting huts which . . . might be supposed to have the effect of stunting the growth of their minds, . . . and yet several of these men are adepts in the subtleties of the profoundest grammar of what is probably the most philosophical language in existence. . . . They are in general shrewd, discriminating, and mild in their demeanor. The modesty of their character does not consist in abjectness to a supposed or official superior, but is equally shown to each other" (50, pt. I, p. 87). They were, says Chamberlain (22, p. 22), the visible representatives of culture and religion, and of all the higher forces of the

**Hindus.** Fees were forbidden by the laws of Manu, and the pandits were supported by gifts and in some cases from the revenue of the land attached to the school. So far, indeed, from fees being charged, it was common for the pupil to be both instructed and fed, and Chamberlain says that the intercourse between teacher and pupil, bound together by common study of sacred books and by close ties of caste, resembled that which Fichte conceived.

In the Panjab, seven classes of schools were found in existence, and they are typical of the modes of instruction throughout India. These were as follows: (1) The patasalas, or 'sals,' consisting usually of ten to twenty almost naked children squatting under the sacred pipul, marking letters on the plantain, reading and writing in the Hindi and the Mahajani dialects, with sometimes letter-writing and doing "sums" of a simple nature. The hours were from six or seven in the morning to eleven, and from two to sunset. There were no classes and no competition. In the evening the tables were repeated to a monitor. The teacher was usually a Brahman, although a Mohammedan has been known to carry on a school for Hindu boys. No fees were charged, but gifts were made to the teacher on festal occasions, such as the birth of a child in a home.

(2) Maktabs taught by maulvis or munshis who charged small fees for teaching reading and writing in Persian and simple "day's pay" calculations.

(3) Maktabs kept by wealthy individuals at their homes, somewhat analogous to the Renaissance schools at such ducal courts as of the Gonzagas or the Medicis. Boys from the neighborhood attended for a small fee.

(4) Maktabs taught by eminent maulvis, pandits, or faqueers, in groves, by sacred streams, or in village market-places. Here the master sat to meditate and pupils gathered to him. Instruction was free, and, in fact, food was often supplied to pupils.

(5) Schools of Arabic and Persian.

(6) Special classes in Mohammedan law, medicine, etc.

(7) Schools in connection with masjids and tombs.

Of the higher sanskrit schools, Leitner says, "As for the mode of instruction, nothing can, in my opinion, surpass the excellence of the system pursued in some of these schools. The memory, the reverence for the teacher and for the subject he teaches, and the love of study, are cultivated; the intellect is stimulated to original adaptation of the subject matter read; Sanskrit is treated as a living language, entering into the thoughts and associations of the pupil, who is encouraged to compose in it, if not to hold extempore discussions in it with fellow-pupils on subjects set by the teacher" (so. pt. I, p. 82).

The instruction of girls was looked after mainly in the home. Early marriage prevented much advance beyond reading the Koran or the Panjabi *Granth*, and for girls to attend "public"

Whatever the value of this evidence and these suggestions, they show how far the new system had succeeded in assimilating the old efforts, or in winning the confidence of the old masters. Leitner makes, in substance, the following strictures on the workings of the system as fulfilling the spirit of the Despatch of 1854, his emphasis being on the negative:

"The Department has not secured the assistance of the learned classes in India; in the selection of educational officers, sufficient regard has not been paid to the requirement that they shall have the confidence of the people; useful and practical knowledge for every station in life has not been conveyed to the masses; indigenous schools have not been encouraged by scholarships, by grants, by supervision, by improvement of teachers, by publication of vernacular primers, etc.; the native's mind has not been directed beyond mere government employ to wider and more important spheres of usefulness among his countrymen" (50, Precis and Conclusions, ch. C).

And in another connection he says:

"The object of indigenous schools is education for its own sake or preparation for the work of life; that of the Government schools is examination and employment under Government. . . . The continuance of indigenous schools is practically a protest against the Government system, and seems to be, in the native opinion, a survival of the fittest" (50, pt. IV, pp. 13, 15).

The Governor's note, after a tour of inspection in 1872, said:

"Boys of every grade and class of life are forced into the same mould, have to pass through the same educational course; a consequence being that all those to whom it is unsuited—a majority—often decline to attend the Government schools" (50, Precis of Gov't Records, ch. A).

In the chapter on 'The Social and Moral Crisis,' in his 'New India,' Sir H. J. S. Cotton thus indicates some of the tendencies of officially controlled education:

"The habits and opinions of the people are modified, and even their mode of life is changed, but the hereditary tendencies by which the progress of the race must be determined, are left untouched. There is no power of guidance or consolidation. . . . It is not possible to effect permanent good by educational establishments which are in the hands of a foreign power. . . . It is not possible to successfully disseminate western ideas through an official channel" (26, p. 205).

And in showing the contrast between the school or college life and the home life of the Indian pupil, he says, in effect, that the very text-books are often violently opposed to the spirit of the home religious traditions, the boy grinding at some scathing exposition of idolatry and priesthood, while the mother feeds the flame on the family altar.

"The professors of the Department deliver their lectures on Milton and Mill as a magistrate dispenses justice, . . . but make no attempt to exert a moral influence on their pupils; . . . the moral character is left to be moulded by the home associations without any attempt to improve or modify these associations" (26, p. 218).

The Directors' reports for several years following the introduction of the system into the Panjab acknowledge the absolute failure of the efforts to absorb and adapt the village schools, and this chiefly, Dr. Leitner claims, because of interference with the religious teaching and too sudden disturbance of the primitive conditions.

At the very best, the formulation and direction of an educational policy has generally fallen, in India, as in many fields of colonizing enterprise, into the hands of political administrators, who, however zealous and sincere, could never reach an inner point of sympathy with the native beyond the conception of so adapting western administration as to qualify him as soon as possible for Anglo-Saxon citizenship. Only within the last year (1907), for the first time since India passed to the direct control of the Crown, have natives been called to a place on the council of state. Mr. Morley has been bold enough to depart from precedent, so precious to the English mind, by appointing to the Council Krishna Gupta, a Hindu official, of high standing, and Saiyid Husain Bilgrami, a Mohammedan scholar and thinker. The London "Times," commenting favorably upon the appointments, dwells on the fact that only the very exceptional statesmen, such as Gordon was, can ever arrive at anything but an external acquaintance with things oriental, or fully appreciate a situation from the native point of view.

Again, while the best class of Hindus and Mohammedans are perfectly alive to the fact that the youth must one day choose between clinging to and departing from the old faiths and customs, they are determined to resist any forcing of foreign ideas upon the child. The complaint in many sections of India that state aid is granted to schools that enforce Christian teaching, is, if well founded, as just as that of the non-conformists in England and Wales. However much we may sympathize with missionary efforts, we must admit that, in fairness to all, Christian instruction, as well as Brahmanical, Buddhistic, or Islamic, should be entirely voluntary. On the other hand, the non-moral system of the government is revolting to the whole trend of the Hindu mind, and its fruits are seen in the growing up of a generation without moral or religious basis, as Chamberlain quotes, "with no landmark on earth and no lodestar in heaven" (22, p. 102).

A private letter, recently published in the London "Times," from an Englishman in India well-versed in the situation, emphasizes the wisdom of using native reverences and customs and developing them. The feudalism of the old aristocracy, which the native reveres and obeys, the old baronial council, and the village Panchayat, are, in their own sphere, effective instruments of law and order. A return in a measure, the

writer maintains, to the old paternal system, would go far toward solving the present question of unrest.

## VI. INDIGENOUS CULTURE IN AFRICA

We shall now turn to ruder scenes of colonial enterprise, regions where it might well be questioned if there is anything indigenous that is not wholly vile, and if the educator's first task is not to create a *tabula rasa*, so to speak, and to start anew. Naturally the Dark Continent first looms before us with all its problems. And here we shall treat only of some of the principal of the Bantu and Negro races that appear, in the light of the researches of many careful observers, to have developed some degree of social and pedagogic system. Traces of such systems are not wanting among even such aboriginal stocks as the Vaalpens, Bushmen, and Hottentots, but want of space forbids our examining them in detail. Full accounts of these peoples are found in several works included in the bibliography.

*Bantus.* That part of the continent lying south of about 4° N. lat. is largely occupied by the great Bantu family (30, Vol. II, see map), loosely called, in South Africa, the Kaffirs. They have a well developed tribal system, keep flocks and herds, smelt iron, mould pottery, carve wood, and have shown considerable ability to adopt improved methods of agriculture (71, pp. 52, 85).

From the Cape to the Limpopo River, the same general tribal organization prevails (71, p. 21). The chief is the central figure of the tribe, property reverts to him, and he is the one who must exact blood revenge, for to him the blood of the tribe belongs (16, Rev. p. 270). Most tribes have an advisory council with a chief counsellor. The heads of villages come next in authority, and after them heads of families. Serious crimes are referred to the chief directly, failure to do so being punished by a fine. By the *spoor* law, a village or kraal is held responsible for the crime of an individual member, until he is delivered up (16, Rev., p. 273). While the Zulus have a more martial form of this system, a sort of military despotism, the Besutos and Bechuanas are rather more democratic, allowing freedom of speech in the tribal assembly (10, v. 2, p. 189, *et seq.*: 71, ch. 2), and making reparation for murder to kindred of the victim. Among the Zulus, no tribesman is paid for anything, as, in a sort of feudal fashion, his possessions belong to the chief, but he may receive presents in return. Among the Bechuanas "debts never die" (71, p. 41).

The way to the Kaffir's heart is through his cattle. They are his chief love, and about them centre no end of ceremonial observances. Dancing oxen, for example, are common. Cattle also form the standard currency. As an example of the fondness of the Kaffir for his ox, it is said that, whereas the work of tilling the fields was formerly considered beneath the dignity of the lord of the soil and was left to his wife, on the introduction of the plough drawn by oxen, the husband began to devote himself to agriculture (71, p. 85). The Kaffir, moreover, loves his home and his valley, and in his tribal location, says the compilation of the South African Native Races Committee, is the best behaved fellow in the world. A tactful magistrate with half

a dozen native constables can keep in order a district of 60,000 people (71, p. 47).

Monogamy generally is the standard, though it is common for the chiefs and leading men to have several wives, to "add rafters," as they say, to the main house, over which the leading wife, usually the first married, presides (8, p. 23). Such polygamous practices are, it is well known, directly related to their strict marital forbearances, and there is no evidence of promiscuity. This fact, along with the prohibition of marriage within any traceable degree of consanguinity, probably has much to do with the virility and productiveness of the race. The Cape Colony colored population increased, during the period from 1875 to 1891, some 25%, and that in the face of systematic attempts on the part of Boer and Briton to exploit them (71, ch. 1).

It is the *Negro* family, centered chiefly about the Gulf of Guinea and the central western coast, that has, from the time of John Hawkins, furnished the material that now constitutes, in such large measure, the wards of Britain and America in the West Indies and the southern states. And with the briefest glance at the history of the slave trade, we can easily see how little it is to be expected that any great body of tradition, which might form a basis for education, should remain among these people. The best of their tribes deported, and the weaker elements left the prey of stronger races, it is at least suggestive of the possibilities of even the Negro section of the so-called African race that they have not only survived but are actually increasing.

Cust says (30, p. 165), "No Negro sage or legislator ever rose up to show the way to better things, and no chronicler or bard has recorded the past. So, with the exception of their wonderful languages, which are in themselves a history, a chronicle, and an essay on logic, and, if rightly handled, serve as a touchstone of what they knew, or where and by what channel they came to know any science, or art, or product, or moral sentiment, they have nothing to offer to the inquirer or the speculator. Chronic warfare, absence of public opinion, absence of manufactures and sea-borne commerce, absence of any book-religion, absence of clothes and the common decent forms of life, presence of cannibalism, slave trade, human sacrifice, cruelties beyond description, fetishism and witchcraft, with the wildest and most monstrous consequences, have been from time immemorial to the present day the characteristics of Negro-land." Heli Chatelain points out as the chief causes of the present backward condition of Africa, racial seclusion, and the practices of polygamy, slavery, and witchcraft (23).

On the other hand, while Cust is probably correct in regard to the positive factors that have served to retard progress, his low estimate of Negro culture is not in agreement with the testimony of some other competent authorities. Professor Boas tells us that "the metal industry in Africa reached its highest development on the Guinea coast, where the palace of the King of Benin was decorated by bronze castings which in boldness of form and difficulty of execution challenge the work of our most skilled artisans." And again, after speaking of

the remarkable development of trade and of judicial procedure, he mentions, as an example of the organizing and governing capacity of many tribes, the Lunda empire in the Congo region "which equalled in size the large European states, held together by the personal force of an emperor (just such a leader as Cust says never arose) whose power was limited by a curiously intricate constitution based largely on a system similar to the feudal system of the Middle Ages" (5).

The Mandingoës, the Krus, and others of the same region, are uniformly described as peoples of fine stature and fair mentality. Untainted by "culture," their morals are rigid, even according to cultured standards. The Mandingoës inflict death on the murderer and the adulterer, but the adulteress is only whipped. Slander and disrespect to parents or the aged is punished by a fine. Immorality, apart from adultery, was practically unknown (quoted, 6, p. 45).

Among the Veis of Sierra Leone, a murderer may be killed by a relative of his victim, but no penalty is imposed for the killing of one's own relative. Idle good-for-nothings may be killed with impunity by a brave, patriotic and industrious man. If a slave is caught in theft he is let go, but a free man is branded for stealing (57).

The Sereres, north of the Gambia, are a fine, well-grown race, not unpleasant in features. They are independent and comparatively industrious, cultivating rice and corn, and raising cattle. The king is supreme, but is represented in subordinate districts by a 'madunget,' or governor, who again can appoint agents or 'jarrafs.' Murder and adultery here also are capital offences; the goods of a thief are confiscated and handed over to his victim (6, p. 46).

A general trait of all these barbarians is their improvidence. In many other ways, too, they resemble children of our race. Thus they can appreciate human and animal pictures, but not landscape, and have no idea of perspective. Yet it must be remembered that children and savages, though not capable of much abstract reasoning, are exceedingly quick to detect inconsistencies, and to draw analogies. Dr. Nassau (61, p. 84), tells of a Christian woman who was rebuked for having a fetish suspended in her bedroom. Her husband, a partly educated Sierra Leone negro, wrote an angry letter to the missionary justifying his practice. Said he, "You white people don't know anything about black man's fashions. You say you trust in God, and yet you put an iron rod over your houses to save yourselves from death by lightning. You call that 'electricity' and 'civilization.' I call this charm of mine 'medicine' to save my wife from death through the arts of those that hate her, and you call me a heathen." Dr. Nassau admits the difficulty of making the difference clear to the native.

*Child training* among the Bantus and negroes is mostly free and imitative up to the age of puberty. As a rule the Kaffirs love their children. If a mother dies, the grandmother cares for the child and even suckles it. Education might be said to begin at birth, for the stoical behavior of the women during

parturition is believed to have a direct influence on the courage of the children (51, p. 83). After weaning, which, of course, is often quite late, comes the novitiate. The boys are formed into a sort of class or corporation, and instructed in the ancestral customs by a tribesman of influence. This seems to be a veritable school, for the families provide for the support of the pupils and pay in ivory for their clothing. Next comes the discipline of the cotla, or forum (51, p. 84), a rhetorical training necessary to correct the perverse dialects of childhood. The Bantu are very fond of public speaking, a characteristic, also, of the west-coast negro, and the persistence of the trait is seen to-day in the volubility of the West Indian lawyer.

An exquisite picture of Kaffir child-life is that in Kidd's book, "Savage Childhood." The dawning of self-consciousness, and the gradual extrication from the confusion of the self with the clothing, the shadow, the likeness, the name, one's actions, etc., are very human processes, and we cannot but think that if only this bright naïveté could be kept from becoming covered by the dull crust of custom, that fatal arrest after puberty might be, to some extent, at least, prevented. That the Bantu youngsters are not without imagination is seen in their games. Before the missionary they appear dull and unresponsive; but when no stranger is about, they delight in playing missionary, holding a play service, singing hymns, and mimicking the padre's bad dialect. The insistence of the motor idea is strong in the native; he likes to play games involving motor skill, is fond of acrobatic tricks, of mimicking animals, and delights in dolls and clay animals. Cunning and imitation are precocious faculties; imagination is later, and fades after puberty, though not wholly, as is seen in some of their metaphors. For instance, the Zulus have an expression for "far, far away," which means literally, "there, where one cries, 'Oh, mother, I am lost'" (46, p. 74). But curiosity is meagre, as there has been so little to stimulate it. They have a keen sense of rhythm, more so than of melody, and as to color, they apperceive it in the small rather than in the large, in the flower, not in the landscape. Notions of truth, tricks and excuses, childish fears and ambitions, are much the same as with our own children. In fact, the whole picture is that of an intensely human little animal, decidedly attractive, and one feels pity that it should grow up into an unattractive and troublesome Kaffir problem.

Among the Veis of Sierra Leone, the children from the cradle are taught the native legends and the songs of the braves, and very early the boy begins to carry the bow for his father. Then he gets his target practice, and at twelve begins his schooling with a study of the Vei alphabet. At fourteen he enters the tribal school, the Bellee or *Zauberwald*, described below (57).

*Pubertal Customs.* While the formal training of savage childhood varies all the way from apparent utter neglect to strict training in the occupations of the father or the mother, in all the well organized tribes there is a uniform emphasis laid on the arrival of puberty. Here culminates all the previous

training, or here begins the most solemn and sacred preparation for citizenship or for priesthood. From this period the parent no longer indifferently suffers his child to attend the mission school, and this is the crucial point that so many promising mission pupils fail to pass. For on this stage of life is concentrated the whole force of tribal tradition and prejudice, and of the mysteries of this period inquirers can find out least. But of this node of life, so universally significant in all races, savage or civilized, when manifold new relations of existence, physiological, vocational, and the more subtle psychic ones, burst upon the youth, it behooves all educators to take knowledge, and particularly those who labor among primitive peoples. Some account of the Bantu and the West African pubertal customs, so far as ascertained, should be given.

Among most races, at this period, or on the approach to it, the sexes are separated, and kept strictly apart until the pubic rites are over. The account given by Büttikofer (15, II, p. 302, *et seq.*) of the *gree-gree bush* (*Zauberwald*) among the Veis of Liberia gives a good idea of these "boarding schools." (See also 57.) At about ten years of age the youths and maidens are secluded in separate and secret *gree-grees* in the depth of the forest, under the respective instruction of old men and old women. Here the boys receive a strictly Spartan training in endurance, in warfare, and also in the industries, law, politics, and religion of the tribe. They are taught, says Büttikofer, in all cases to courageously protect the oppressed and to struggle against wrong. All are circumcised on entering, if the rite has not been performed in infancy, and all go naked during the months or years of their secret training. But the most striking part of the description is that the pupil is taught to believe that, on entering this house in the forest, he is swallowed up by the spirit of his ancestors and is born to a wholly new life. Accordingly he receives a new name and, on entering public life again, must learn all things anew. It is verily a new birth and a new existence in which the youth enters into the inheritance of his fathers.

A special feast celebrates the close of the novitiate, when the "graduates" take part in a masked dance, and it is at this time, in some tribes, that the rites of endurance take place. Only such as have been through this training can take part in the councils of the tribe.

The girls are taught in their *gree-gree bush*—*sandee*, the Veis call it—song, games, and dances, as well as all manner of household duties, net and basket making, etc. The songs are said to be often lewd, but the maidens in their daily converse are modest and chaste. The burden of the teaching, other than the industrial, probably emphasizes, as among the Bantus

(51, p. 86), the function of motherhood, and obedience to husbands. We might well compare here Herbert Spencer's strictures on our own educational system as one devised only for a race of celibates, or for monastic orders.

But this doctrine of wifely obedience does not mark the scope of the womanly function in the tribe. Among all these more or less unspoiled natives, the motherly influence is paramount as a final court of appeal. This is the stronghold of conservatism, and from the mother often proceeds that blank opposition to all missionary efforts. Miss Kingsley's studies led her to recognize the greatness of this influence. Among the Tuaregs, a superior race in the French Soudan, A. H. S. Landor tells us, woman is considered the equal, if not the superior, of man. In youth she is educated better than her brothers, and, as a wife, is free to go and to do as she pleases, provided she does not neglect her household duties. She takes a leading place in council, even deciding for peace or war, and so much authority has she gained that she has been able to impose monogamy upon the Tuareg people, Mussulmans though they are (49, II, p. 326).

Reference might be made to educative customs in many other parts of Africa, but the features of most importance in the native system have been pointed out and further mention will be made in other connections of some social regulations that are widespread. Customs vary widely, however, even in the same group, as do also grades of intelligence and educability, and the most we can do in a brief sketch is to emphasize the pivotal points that should most concern us as educators, remembering that educational efforts must take note of, and be planned in regard to, the variations of detail in different environments. Mere description and classification of races and types of culture are the task of the ethnologist, not of the educator.

## VII. OTHER RACES

The *Australian bushmen* are generally reputed to be about the lowest in the scale of culture. When the colonists first met them, they were still practically in the stone age, ignorant of agriculture, and unable to count beyond four. Yet they were not without tribal organization, and such chiefs as they had were advised by a council of elders (69, I, p. 91). Their intricate marriage laws and proscriptions attest some degree of mentality, and Rusden goes so far as to say that "in intelligence, good-humor, and loyalty, the despised black race often put to shame the boors among the vaunting Caucasian intruders" (p. 81). Their language had inflections, suffixes, and dual numbers. In their elaborate "corroborees," or dances, the

slightest error in ritual or music exposed the culprit to humiliating taunts (69, I, p. 88). Their rock-drawings and basketry were much admired by many observers, and in the manufacture of their weapons and implements with the aid of only a stone tool, they showed marvellous patience and skill. Moreover, they showed no little adaptiveness, on coming into contact with the settlers, in replacing the stone axe by the iron tomahawk, and the fire drill by the flint and steel. With the last of this perishing race will die out the art of making and throwing the boomerang, for, as yet, it has not been reproduced.

Such are the most prominent features and practices of the various tribes. As to child-training, while infanticide was not uncommon, the natives seemed to love their children, and let them play all day long, drawing in the sand, carving wood and making and throwing toy boomerangs, until they were old enough to get their first lessons in the chase, in which these tribes so notably excel (72, p. 21, *et seq.*). Games were numerous and some very intricate, from cat's cradle to the tribal dances (74, c. 7). Boys were initiated at puberty with a solemn ceremony from even a knowledge of the place of which women were religiously excluded (see 72, chs. 7-9). As a rule, these sons of Nimrod are said—using the present tense for the few that are left—to be manly and liberty-loving, but that they are doomed to extinction there seems to be little doubt.

*Melanesians.* Though still in the infancy of human development, and in many respects much inferior to the Polynesians, these islanders possess many most interesting customs and institutions. Thomson says (10, IV, p. 343) they are a museum of primitive institutions. They are apt in learning foreign handcrafts, but the usual European traffic has made them more savage and dangerous. They possess considerable skill in sculpture, and are very industrious both as planters and as laborers. How they have suffered from their readiness to work thus for others has already been noticed. (See above, p. 4.)

While no distinct initiative rite for the "making of young men," can be found in these islands, there are secret societies that play an immense rôle in their life. All boys and young men, of any age, who desire social standing, seek admission to the leading 'orders,' and the initiation is usually with painful and disgusting orgies. Seclusion and special diet follow for some months, but this does not appear to have, as in Africa, a pubertal or pre-matrimonial import. Rooted in superstition, these societies yet survive the introduction of Christianity, serving as a social factor, and often as an ally of law and order. An incident in the Banks Islands, mentioned by Codrington (25, p. 75), shows how a heathen institution may sometimes be brought into service as a factor in civiliza-

tion. Through the teaching of Bishop Patteson, the raising of weapons in a private quarrel had by general consent been given up, and when a native violated this agreement the Tamate brotherhood rose in a body and made night and day hideous until the offender had compromised by the payment of a pig as a fine.

The Melanesians show great fondness for children, but in many islands there is strict discipline. Boys and girls are kept separate, and a curious reserve is practised by the boy, from the time when he assumes dress, toward his mother and sisters. At about twelve years of age he begins to live in the public *gamal*, a sort of club-house. Girls are not allowed to go about alone without a mother or elder friend. Adultery is severely punished. Though harlotry exists, it is largely the result of white influence, and public opinion is against it (25, p. 235). Among the Muruts of Borneo, says Dorothy Cator (17, p. 102), adultery was almost an unknown crime and punishable with death. She further remarks on the gentleness and peacefulness of the communal home-life of these head-hunters.

*Polynesians.* These tribes, and particularly the Maoris of New Zealand, show curious evidences of intermixture. According to Keane (Chamb. Encycl.), the political organization is based on a distinction between nobles and common people. The Maoris had developed a sort of democracy, but elsewhere feudal monarchies mostly prevailed. Brown (12, chs. 6-7) says slaves were treated kindly, yet often, on solemn occasions, offered in sacrifice. Women were usually drudges, yet often revered as war leaders. Animism is characteristic of the Polynesian religions, but ancestor worship is evidently prevalent. The system of *tabu* is general, and often serves as a moral force. Thus the native can protect his garden, or his wife, by having them placed under *tabu*. Honesty and hospitality are marked features of many of these islanders, especially, it is said, of the Samoans. An instance is related showing the gratitude of King Malietoa when, on receiving gifts on board an English ship, he sent his whole retinue ashore to bring off food-stuffs in return (42, p. 18).

The intelligence of the Polynesians is lively and adaptive. They possess a rich store of mythological and heroic legends, a body of relatively superior arts, and a rather advanced numeration. Oratory and minstrelsy are systematically taught, the bards in particular being very specially trained. These islands were homes of song and pleasure. The French gave Tahiti the name *Nouvelle Cythère* (51, ch. V).

Infanticide is common, but the children spared are treated mildly, and are taught the occupations of their parents. Pubertal festivals are held, and the circumcision and tattooing cere-

monies are attended with rites of a sexual nature. In general, education is first a family, then a social matter, and pertains alike to body, mind, and morals (*loc. cit.*).

### VIII. THE PSYCHIC CONTACT OF THE RACES

When, at length, the conviction dawned upon the western world that the victim of the trader's greed and the colonizer's ambition had a mind and a soul, then ensued what may be called the psychic clash between advanced and backward cultures.

*A review of the educational efforts* made on behalf of dependent races might occupy the whole space at our disposal, but a few remarks must suffice here. Gleaning from the Special Reports of the Educational Department of Great Britain, we find that schools among the natives of the colonies are established and maintained on the same general plan; namely, mission initiative, followed by State aid on condition of conformity to code and of submission to State inspection and examination. The curricula include the three R's, reading and writing being begun in the native character, with dictation and simple translation, in the 2nd and 3rd grades, at latest, from the native tongue to English, or the reverse. Geography of the world is begun a little later, with special emphasis on the British colonies. English history is put in next. In some West Indian schools, while a few pages of the geography text-book disposes of each of the rest of the earth's divisions, every shire, town, and hill of England is treated in detail. And this is true, to some extent, of the higher grades of the elementary schools throughout the colonies. Religious instruction in assisted schools is usually formal and sectarian, being given at set hours as provided by the code. But for the religious work proper, of course, the mission work must be studied. In this respect, as in all others, the monetary advantage accruing from State aid involves the limitations of a code framed, as a rule, in total and inevitable disregard of the native needs of a particular mission district. In the more regularly settled parts of the colonies, Government education prevails, with, of course, a still closer conformity to the code.

In the whole colony of *Sierra Leone*, there were, in 1900, 77 schools under government inspection, comprising about 8,000 children (33, vol. 13, p. 89). The course of studies embraced, for the grades, reading and writing in English, arithmetic up to or through percentages, grammar and analysis, English history, and geography of the world, with special emphasis on the British colonies. Text-books are of English make. The course in history begins in Grade IV, and in Grades VI and VII is continued down as far as the present time. In Grade

V, a little of the story of adjacent settlements in Africa is inserted. The usual elements of industrial training are encouraged, as gardening, carpentry, and needlework, but there is no mention of native handicrafts, annals, or traditions.

The above are schools for children of liberated slaves returned from abroad and for free blacks born in the colony. It is said that the signs are hopeful for a healthy progress. Commissioner Madden found on his visit of enquiry, in 1841, that, in some schools, even those taught by a native, the first class boys could hardly have been surpassed in reading, writing, and geography, by those of any European school (33, vol. 13, p. 78). But the Commissioner spent only two weeks in the colony (27, p. 174), and his knowledge of the actual results could have been but meagre.

For no African race, says the Report (33, vol. 13, p. 132) has more been done in the way of education than for the *Basutos*. This tribe is conspicuous for industry, shrewdness, and political sagacity, and is showing a keen desire for modern education. In 1903, there were 206 assisted mission schools, with an enrollment of 14,171 pupils, one government school, and one assisted native school established by a native chief. The course in all is on the same general plan. The period of English history up to 1688 is covered in the three highest standards, and the geography of the British Isles is taken up in detail in the highest, standard VII. English and Dutch are the languages prescribed for the grading examinations, and the reading course extends from the infant reader to dialogues in blank verse. The schools of the Paris Evangelical Mission Society seem to be the only ones using the vernacular, exclusively or nearly so, in the early grades, and their report speaks of its use as a great improvement. The industrial work prescribed in the various schools comprises the usual elements. There is no mention of native handicraft.

Theoretically, says the Report (*loc. cit.*), the career of learning is as open to a native Basuto as to a European. But the prevailing prejudice against the educated Kaffir, and the rigid labor conditions which capital has imposed, leave little place for any but the native who is content to be a "cheap labor machine."

In *Natal* very little is being done. There is a class of native schools doing fairly good work, but most are poorly equipped and poorly attended. Writing and "ciphering" are the most popular and best learned subjects. The manual work of the girls is sometimes excellent, comprising, in the day schools, sewing and crochet, and in the boarding-schools, knitting, washing, ironing, etc. The boys' work in these latter schools is also fairly practical, but that of the day-schools the Report calls a farce. Zulu children are prevented by law from attending school against the wishes of their parents (71, pp. 175, *et seq.*, 333).

There are, in all, 13 small training schools in South Africa

at present, at which over 1,100 native youths are trained either as pupil teachers, or for the industries. These are mostly assisted mission schools; but one, conducted on Tuskegee lines, is maintained by natives with the assistance of negroes in America. There is great need of practical hygiene in the schools, for the native death-rate, both infant and adult, is terribly high (2, p. 147, *et seq.*).

In the schools of the Swiss Mission in the Transvaal and of the Scottish Mission at Blantyre in British Central Africa, the vernacular is used in the early grades. Rev. H. A. Junod, of the former mission, emphasizes the need of more suitable reading and spelling books in the native tongue and based on kraal life and native folk-lore. For, he says, many of the folk-tales are of a truly moral character and real literary worth. For higher grades he recommends, and has in part prepared, books of verse and science primers. The native tongues are well suited to certain kinds of verse, and elementary science, Junod thinks, is effective in overcoming superstition (44). Musical and metrical methods of instruction are particularly suitable for these people.

Of education of the wholly uncivilized natives, the sole mention in the Special Reports is one paragraph in the section on West Australia, which says that practically nothing is being done for the few remaining aborigines (33, vol. 5, p. 549). There are but three native schools in the whole Commonwealth, but no account is given of the work they are doing (10, IV, p. 93).

We cannot leave this subject without some notice of the *university extension* efforts in the colonies. These concern secondary and higher education directly, but, as the natives of the colonies find here the only possible continuance of their elementary studies in the imported culture, a brief glance at these higher courses will help us to form an estimate of the benefits of the elementary system.

The Cambridge system offers a good example of these extension efforts. At some twenty colonial centres, in Australia, Bengal, Madras, British Malaya, Straits' Settlements, Ceylon, Mauritius, Seychelles, Shanghai, and several centres in the West Indies, pupils of the high schools sit for the annual examinations of the Cambridge Local Lectures Syndicate.

Here young Brahmins, Buddhists, Mohammedans, Africans and others write side by side with the sons of the Anglo-Saxon on questions prescribed by the examining board at Cambridge University. The subjects of the course comprise the full range of academic instruction in England. For the lower or Syndicate examinations, a 20% pass mark is required in the total, on papers in English, French, Greek, Latin, mathematics, history and geography, and agricultural science. To ensure a pass, the pupil usually takes all the subjects ex-

cept, perhaps, one language. The questions are sent out from Cambridge, and the pupils' papers sealed by the local examiners and sent back to Cambridge to be read. Thereafter is issued a mark-sheet and a detailed report by each syndicate examiner, from which the local instructors prepare their own pass lists and grade their pupils. These instructors are, theoretically, at liberty to teach what and how they wish; but the examination questions are of such a detailed and highly academic nature, not a whit modified for the colonies, that the instruction is practically ruled by the ideas of a group of classicists and academicians, few of whom ever saw the colonies or studied their particular needs. As for the pupil, be he white, black, or brown, the whole arrangement means to him little else than a pass and a grade; but as the higher examinations are approached, law or medicine in an English university looms up large on his horizon.

These higher examinations, the Cambridge Locals, so-called, usually qualify in two years for matriculation into the university, and offer electives from a course comprising six languages, viz., English, Latin, Greek, French, Spanish, and German, history and geography, mathematics, physics, chemistry, biology, physiography, shorthand and typewriting, drawing, and music. The pass lists are published by the Syndicate, a fairly high standard being required. On the part of the colonies, in many cases the government offers a number of scholarships for the highest passes in the senior examination, entitling to study abroad, that is, expressly, in any British university. As a rule, a course in Oxford or Cambridge is the next step.

Three years' teaching under this scheme in the colonies has convinced me that, while it offers ample opportunity in higher education, it is setting as the apex to the whole fabric of colonial education an issue utterly foreign to the native spirit and genius. It is putting within the easy reach of sons of Hindus and of Africans, for example, attainments of which few of them can make any use. For, unless they can by sheer ability wrest a scholarship from their well-nourished Saxon rivals, the native graduates find no farther avenue open to them but some petty clerkship or a position in a hospital or dispensary. To win the Cambridge certificate, they have been obliged to carry along from year to year an increasing burden of scholarship, crippling alike racial naïveté and individual spontaneity, a twofold injury, in a sense, as compared with the results of a similar policy in our own schools. The acuteness of the Oriental and the fervor of the African are forced into the same channel of expression, foreign alike to both; the only alternative is a menial existence in which only the baser qualities find utterance. In a word the native of the colonies must either be left to his lower instincts or have his higher ones replaced by foreign cravings that he has no means of satisfying.

There are not a few instances of native thrift, industry, and self-reliance among both Africans and Orientals, but they owe little to the schools, least of all to the secondary schools. Color and race, it is true, form no bar to commercial and political advancement; a late attorney-general in one of the colonies was a

colored man. In fact political and commercial conditions offer tempting opportunities to African eloquence and legal instinct as well as to Oriental shrewdness. But the system which provides the training for such possibilities leaves no room for development of the primitive, characteristic, traits of an ancient people, and but little room for preparing the masses to appreciate and to meet the problems immediately before them. That little is supplied by some beginnings of industrial training, concerning some special conditions of which a few words should now be said.

One of the best efforts in the direction of *industrial training* has been made among the Kaffirs, at Lovedale, in Cape Colony. Founded in 1841, this school began life with eleven natives and nine Europeans, and had, up to 1887, as graduates or on the roll, 1,520 male students, black, brown, and a few white, instructed in the elements of language and arithmetic and in trades. Further help was given to promising professional students. Over 500 female students beside have been graduated. From the first the interest of the natives in their own schooling was trained, and in 1899 they gave £3,500 to the support of the school. Workshops were set up in 1857 under the encouragement of Sir George Grey, and at present there are twenty-two buildings. The totals of the government grants and the native contributions from 1870 to 1886, were respectively £5,388 and £17,000. The motto of the institution is "Godliness, cleanliness, industry, and discipline." In answer to the question 'Do the natives work at their trades after leaving the school?' Dr. Stewart, from whose report in 1887 these facts are in part taken, says, "Not all; many fail to find work, for when trade is low the white artisan gets the preference." (It must be remembered that the whites in South Africa form about one-half the urban and about one-fifth the rural population.) Dr. Stewart accounts for the 1,520 male students of the institution since its foundation very creditably. Some 500 are in the trades and industries, and some 350 in the more clerical and professional callings. Only fifteen are reported as relapsed to heathenism, though 150 others are "unknown." Fifteen others are called chiefs or headmen, but no information is given as to the way in which they perform their functions. This is really the most hopeful item in the report, for through educated chiefs can the tribes be most readily and permanently influenced. Yet even in this admirable course of instruction appears no place for the arts and the industries that best express the genius of the race. Unless included under the head of "miscellaneous," none of the graduates are reported as engaged in any really native industry. The fact is that, much as such educators may realize the cultural value of the indigen-

ous arts and crafts, it is very difficult, under the present labor conditions, which even tend to discourage native farming and kraal life in order to promote the "compound" system and cheap labor for the mines, for the mission school to find a place in their scheme for the usual elements of an industrial course, much less for the revival of the primitive weaving, drawing, or music. The Basel Mission on the Gold Coast gives a prominent place to industrial work, and in some of their schools the weaving of mats, baskets, and caps is taught, "but in no systematic way and without any industrial scope" (33, vol. 13, p. 298.). The flood of foreign commerce that reaches these shores is replacing all the native fabrics by factory goods.

In Central Africa, the industrial work of the Livingstonia and Blantyre Missions meets more encouragement than in the south, for the native artisan is the only one on the ground. There being few or no skilled white laborers, planters and traders compete for the service of the educated boys of the Missions (33, vol. 13, pp. 317, 324.).

We have not space to go into the industrial question fully, but the situation among the Kaffirs may easily be inferred from a brief account, from the writer's observation, of the difficulties under which native enterprise struggles even in an environment less combine-ridden than that of South Africa.

In the island of Trinidad, with a present population of 280,000, the labor needs of the sugar industry have been for many years met by a supply of indentured laborers from India, so that now fully 25% of the population is of East Indian origin. The indenture is for five years, after which the immigrant usually resides on the estate five years as a free laborer in order to fulfill the conditions of transport back to India. But of late years, fully two-thirds of the 2,500 or more Orientals who thus enter the colony annually, become attached to the country and make it their home. And here comes in the clash with the planter's interests. The "coolie," having served his or her indenture—for men and women alike count as field units—soon sees the advantage of "homesteading" a few acres of crown land over working on the plantation at a shilling or a shilling and a half a day. But such a step, though greatly advancing settlement and the opening up of the island's resources, is fatal to a cheap labor market, and straightway the planting concern lifts its influential voice in protest against any further sale of crown lands unless at such a price as to discourage coolie investment. With the same purpose, too, the mill-owner would fain keep the product which the small cane farmer—the ex-coolie—offers at the factory down to such a price as to make farming little better than day labor. And thus, if the capitalist had his way, we should find raw sugar

exported at a profit even in the face of an overloaded market, but free individual native enterprise throttled, and thousands of the sons of the classic East herded in barracks along the outskirts of the plantations, leading a hopeless, treadmill existence, and acquiring little but the evils of their new environment. True, schools are encouraged by the owners on their plantations, but the product of such conflicting influence and of such a mixed environment is too often a *fac simile* of the "Anglo-Indian" in Hindustan, simply schooled enough to be denationalized. The planter encourages these schools, in which are taught precisely the same subjects as in our own, plus a little Hindi in the lower grades; but he denies any other future to the pupil than the hoe and the cane-knife.

The homestead native, on the other hand, pushing out into the jungle, is no longer under tutelage, and while, doubtless, his greater freedom involves greater liability to social dangers, he is really more accessible to wise teaching, and freer to give expression to his own racial and individual genius. At the present rate at which the immigrants are being domiciled, free villages would soon multiply, and the demand for native artisans such as the schools might train would be greatly increased. In the plantation village, however, architecture beyond the adobe stage is of outside origin; I cannot recall a single instance of an East Indian doing more than the most elementary work in building. It is true, the Oriental is a trader rather than a builder; the brown man sets up shop in the black man's building; but the needs of the lucrative cacao industry would soon make the former sufficient unto himself in this direction, and the buildings required in this kind of farming would lead to improvements in dwellings and in a general advance in the manual arts.

It is argued, as in the case of our own Indians, that the best policy is to do away with all racial segregation and make the tribesman live as much as possible in the midst of modern culture. But the degree of success that has followed this course does not justify its adoption.

But of the American Indian we shall speak later. In regard to the East Indian settlements above mentioned, free intercourse with the "creole," the staple of the population, prevents development of that virility of which the Hindu is capable. Bengali, Madrasi, Sikh, or Mussulman, all are strong in racial spirit and tradition; but under Creole influence they seem to forget all this and to drift toward the towns and the overcrowded professions. The jeweller is almost the only one of the eastern tradesmen who flourishes. In the midst of vast unexplored resources, the immigrant, in contact with the native blacks, settles into contentment with a hand-to-mouth,

sun-basking existence; whereas, apart in his jungle homestead he pushes on to redeem more of the wilderness, and reacts naively to the influences of education that are brought to bear upon him.

That these great industrial companies have done invaluable service in opening up new sources of wealth and blazing the trail for the settler, is always granted; no individual enterprise could have held the breach in periods of economic stress. But their position, once the field is open, is analogous to that of the imperialism which rules for the sake of ruling instead of to prepare its wards to wield the sceptre for themselves. To teach a people to exploit their own resources is nobler than merely to glut a metropolitan market or pay dividends. But the time seems far distant when, for example, the native, black or brown, in Trinidad, shall operate his own factories and ship his product, or, in Jamaica, shall farm and market his own inexhaustible fruit lands. In the latter colony, where a great fruit concern has, octopus-like, spread its tentacles over port and plantation, the native has his choice between drawing the Company's pittance and raising his own bunch of bananas to throw, for a still meaner pittance, into the Company's basket.

Trinidad, with its more varied resources, is still free from such a grip, and in the development of the petty farmer is the surest road to economic and political self-reliance. We are told that the native farmers will never co-operate or respect each other's property. The answer is, let them experience the responsibilities of ownership and the needs of mutual adjustment. The Negro farmer in the southern states is amply proving this. But among improvident freedmen, living on tips and odd jobs for which they demand double prices, in affluence one day, stealing a meal the next, or among plantation "villeins" with no prospect, or thought of any, but the cane-field and the barrack and the shilling wage, little co-operation or respect for property can be expected. In Trinidad, every school, Government or assisted, is required to have its garden, school fairs stimulate healthful competition, and if a connection could be established between school garden or farm and the markets, a sturdy native husbandry might soon offer effective resistance to any crushing monopoly.

#### IX. RESULTS OF EDUCATIONAL EFFORT

Men of the world persistently declare that the only results of trying to educate the savage are that he obtains a veneer of semi-civilization, with an intolerable mass of self-conceit, discontent, and false ambition, or that he ultimately relapses into his primitive condition. The Kaffir the school turns out, they say, is as useless as he is obnoxious. The little darky at his

lessons or his play is a most lovable thing, his face shining with eager curiosity. Even the vanished and vanishing Tasmanian and Australian children often surpassed their white companions before visitors to the mission school. But the settler sees a later stage and tells a different story. And all his prejudices and selfishness aside, there is much truth in his complaint. After puberty, the dead weight of tradition settles down on the native and the jungle and the voodhoo orgy calls him again, or else, casting adrift from his past, he is found afloat on a sea of discontent and disappointment, a useless pedant, who, having tasted the riches of a foreign culture and never learning to appreciate anything in his own, is seditiously clamant for full recognition as a man of Western education and capacity. The schools are, to be sure, not all to blame for this; the whole influence of the white man's presence works in this direction. But an educational policy must take account of this influence. The conditions in India have been described. Nowhere is the danger of the rift between the old and the new, between the tribal traditions and the culture of the foreigner, better seen than here, where the schools of the Brahmins with all their venerable lore, their bonds of affection between teacher and pupil, have been displaced by the new code. Great Britain is to-day contending with conditions which result largely from a lack of connection of the schools on the one hand with the indigenous system, and on the other with the new régime in its industrial and commercial, as well as its social and higher phases.

On a much lower scale, but all the more hopelessly true, such conditions are found among the Africans. Behind the Kaffir youth are no glorious traditions to inspire national pride, and, once awakened to a glimpse of the light of civilization, his whole desire is to get as far as possible, at least in the eye of the foreigner, from the hut and the kraal with their nakedness and nastiness. There seems to be no race on earth that, brought within sight of a foreign culture, shows less trace of race spirit. In Africa or in America the one regret of the half-civilized black is that his hair is not straight and that he cannot rank as a Caucasian. Kidd tells us of a native looking daily in the mirror for signs of that impossible change in the Ethiopian (47, p. 406). In some West Indian colonies colored pharmacists advertise for sale various compounds warranted to take the kinks out of the hair, and publish 'before using' and 'after using' cuts. And thus the unmanning and treasonable self-contempt is fostered in the race, so that every rudimentary principle of morality is liable to sacrifice for the sake of union, on any terms, with the envied complexion.

In the Natal Blue Book for 1904, Mr. J. Stuart, a magistrate in Durban, dwells on the evils of boys, and, especially, girls, leaving their homes for domestic service in the towns, "dressing up," and being taught that the ways of their mothers and grandmothers in the kraal were filthy and immoral. He speaks of the contrast between "the graceful and modest kraal girl clad in little more than a string of beads, and the dressed one mincing, ogling, and smirking in true Haymarket fashion."

Speaking of the effects of formal education, according to European methods, on the Egyptian peasants, Prof. Flinders Petrie says (63), "Some of the peasantry are taught to read and write, and the result of this burden that their fathers bore not, is that they become fools. I cannot say this too plainly; an Egyptian who has had reading and writing thrust upon him is, in every case that I have met with, half-witted, silly, or incapable of taking care of himself. His intellect and his health have been undermined and crippled by this forcing of education."

Speaking of the mark of Western culture on the Straits' Settlements, Hugh Clifford writes, "Incidentally it stamps out much of what is best in the customs and characteristics of the native races against which it brushes; and though it relieves him of many things which hurt or oppressed him ere it came, it injures him morally almost as much as it benefits him materially. . . . What we are really attempting is nothing less than to crush into twenty years the revolution in facts and ideas, which, even in energetic Europe, six long centuries have been needed to accomplish" (quoted, 48, p. 324).

The questions of arrest and relapse, so-called, are very interesting, and might well call for extended treatment. It is inevitable that, where avenues of application are closed to the graduate of the schools, or where the reviving influences have just breathed upon, not into, the stagnation of native routine, the maturing faculties will awaken with them all the ancestral tendencies, and the native will revert, in spirit, if not in outward things, to the ways of his fathers. 'The Russian is a delightful fellow till he tucks his shirt in,' says Kipling; and to such cynicisms is the civilizing process too generally open.

We might speak separately of physical and mental arrest, but such division is too arbitrary. The physiological and the mental precocity of the savage child are well known; whether and in what way they may be related, is a question here only to be proposed.

As throwing into clear light the helplessness of many a redeemed savage, some of the classic instances of relapse may be worth reciting. Sir George Grey gives a pathetic case from Australia.

The boy Grey tells of was a bright and promising lad on board the "Beagle," wearing European clothes, and waiting at the gun room mess. The "Beagle" left him at Swan R., and he became again a savage, wearing war paint and imbruing his hands in blood. "You see," continues Grey, "the taste for a savage life was strong in him,

and he took to the bush again directly. Let us pause for a moment and consider. Miago, when he was landed, had, amongst the white folks none who would be truly friends of his; they would give him scraps from their table, but the very outcast of the whites would not have treated him as an equal. . . . He had two courses open to him: he could either have renounced all natural ties and led a hopeless, joyless life amongst the whites, ever a servant, ever an inferior being; or he could renounce civilization and return to the friends of his childhood and the habits of his youth. He chose the latter course, and I think that I should have done the same" (69, I, p. 103).

Curr says of the Australians as pupils of civilization, "Though these blacks have been amongst us for forty years, and many of them were born and brought up on our missionary stations, I am convinced that, were they once more returned to their forests and cut off from communication with the whites, they would, in a single lifetime, become again exactly what we originally found them" (27, p. 105).

On the Andaman Islands an orphanage, or training school, was started some years ago, and more than forty children redeemed from savagery, torn, says Prof. Petrie, from a healthy and vigorous life. These were the results: "Of all the girls, two only have continued in the settlement, the other survivors having long since resumed the customs of their jungle homes." Physically they have also deteriorated, few of those who married having children, and none of those children surviving to maturity (63).

The pathetic loneliness of Jemmy Button and his comrades, the Fuegians of whom Darwin tells in his "Voyage" (ch. X), who had been subjected to some years of civilizing in England, and were then returned to their own people, is a good illustration of the uprooted condition of the victims of such violent philanthropy.

Of the children in the orphan school near Hobart Town, Bonwick writes, "When I saw the aboriginal boys and girls . . . I enquired of their teacher in what respect they differed from the children of the convicts among whom they were thrown. All of the white race were inferior in point of physique and intellect to others of their age and color, of different parentage. They were, however, superior to the dark children in faculty of learning arithmetic and grammar, though not so in geography, history, and writing" (quoted, 67, p. 25). But, while apt pupils, the dark children never took kindly to civilization, and almost invariably relapsed into their wild ways when given their liberty. In Flinders Island, where the last remnants perished in exile, they left off their dancing and hunting, and acquired the English language and useful arts, as well as an historical knowledge, at least, of Christianity. But they always preferred roaming about wild and unclothed, and even the children captured in infancy would return to their parents when grown up.

For the woful tale of the backslding of Aniaba, the West African prince, we may consult Père Labat's *Nouveaux Voyages aux Iles d'Amérique*. Such a case of reversion, so sudden and complete, has seldom been known. H. J. Bell (3, p. 49) tells us that runaway slaves in the West Indies habitually made for St. Vincent, an island not then colonized, and there, though they had seen so much of civilization, they returned with glee to their old life of freedom in the woods.

Some attempt has been made to refer this pubertal arrest to an anatomical cause. It has been claimed that the cranial sutures close earlier in the so-called lower races, thus preventing continued development. Keane (*Ethnology*, p. 44)

quotes Filippo Manetta as emphasizing this contention. Of this matter, however, a more recent authority says we have no definite knowledge as to when closing of sutures should take place. "It may sound almost incredible to the lay reader if it is stated that we do not know the average age at which sutures close, or that we do not even know with any degree of accuracy the average age of such a common and important phenomenon as the appearance of the teeth, certainly not with such accuracy as would enable us to compare the dates at which, on the average, teeth appear and sutures close in different races" (5, p. 44).

But even if this were a proved phenomenon of growth, it would by no means fully explain the psychic retardation. In fact, this can scarcely be held to be a racial peculiarity; for, as Havelock Ellis points out (31, p. 200), pre-pubertal precocity is, in individuals of all races, Caucasian as well as African, very liable to be followed by arrest and decline in after life, for precocity is simply premature hastening through the stages of development that are natural to the individual in relation to his environment and his inheritance. "Educators," says F. C. Spencer, "are beginning to realize that too much stress laid on any one stage of development is apt to cause arrest at that stage" (73, p. 90.). And that tremendous stress is laid, among all primitive peoples, on the pubertal stage, the elaborate pubic ceremonies and initiations amply show. But this matter of arrest and relapse in relation to the indigenous and the foreign pedagogy will be discussed more fully in the concluding section.

#### X. OUR INDIAN PROBLEM

The foregoing inquiry has had to do with conditions and results of modern education in environments, especially, where the representatives of the more advanced culture are, and are likely to remain, a small minority, or where, at best, there is no probability of assimilation of the lower into the higher. We shall now turn to a situation where the question of the absorption and assimilation of the aboriginal remnants is a live one. And this question confronts us most urgently in regard to our own Indians. The following section, then, will review some features of the life of our aborigines and inquire along what lines the tribal characteristics may be further developed to the end that the Indian may become a part of our civilization in the maturity of his powers and not be perpetually a minor and a ward.

The pioneers of modern civilization in North America found the aborigines in widely different grades of culture, from the savagery of the Californian and the north-western tribes, to

the elaborate systems of the village Indians of the South-west, Mexico, and Central America. Between these extremes were such peoples and tribes as the Iroquois, Creeks, Cherokees and Choctaws, who had reached a stage of early barbarism. The old cultural classification of our Indian tribes according to alleged stages of advancement is no longer held, and, while material is being prepared for an ethnographical arrangement according to customs, the best authorities prefer, as most serviceable, a grouping on a linguistic basis. Hence, in the following treatment, the consideration of the indigenous culture of certain groups is not to be taken as representing sharp cultural distinctions, but only as a convenient way of describing native attainments in different regions and under different conditions.

The *Pueblos* were first visited by Coronado in 1540. Castañeda, the historian of this expedition, reports that the houses were three or four stories high, the people intelligent and well-clad, monogamous, and not given to the usual vices of savagery. "There is," he says, "no drunkenness among them, nor sodomy, nor sacrifices; neither do they eat human flesh, nor steal, but are usually at work" (73, ch. 1). Provision for the future was carefully made, as in the storing up of fuel, and the villages were kept clean of all refuse. The government was administered by a council of Elders, for at this period the priestly and shamanistic duties had apparently not yet become identified with political power. The priests, says the narrative, announced at sunrise each day, from the highest roof of the village, the duties of right living, and prescribed certain commandments. The villages were built by communal labor, the women mixing the mortar and building the walls, and the men bringing the wood (*loc. cit.*). Extensive ruins of these villages are found to-day in Arizona.

Brinton (9, p. 116) emphasizes the fact that the Pueblo dwellers were made up of many stocks, so that their communal system must have been developed on the spot as the result of local conditions, and could not have been due to the particular genius of any one people. Their knowledge of metals was very limited. "Pottery of fine temper and in symmetrical forms was manufactured by the women. . . . Mats and clothing were woven of the fibres of bark and of grass, and the culture of cotton was at one time common, especially among the Moquis and Pimas. The arts of weaving feathers and working shells into decorative objects are not yet lost" (9, p. 117). Among all these south-western tribes, architecture was away beyond anything in the northern stocks, but purely, like their great irrigation works, a product of local necessity. Settling into sedentary life, under conditions which required such housing and such co-operative effort, these various elements showed themselves capable, to a certain degree, of responding to the demands of their environment.

In the Pima remains, also, Brinton holds that there is no evidence of other than indigenous development. The Pimas were evidently at one time a dense population, sedentary and agricultural, with numerous towns and extensive irrigation trenches, watering a closely cultivated area of half a million acres. It is estimated, says Brinton, that two hundred thousand people may have found support in this region (9, p. 124).

Other sub-tribes farther toward the Mexican border, as the Tehuecos,

Zuaques, Mayos, and Yaquis, are described as "tall, vigorous men, active and laborious, trading in salt and woolen stuffs, and much given to music" (9, p. 125). Still farther south were the Tepehuanas, "a people of unusual intelligence, of excellent memory, and living in solid houses of logs or of stone and clay, or as genuine troglodytes in artificial caves, and cultivating abundant crops of maize and cotton, which latter they wove and dyed with much skill." Torquemada's chronicle speaks of them as the most valiant of all the tribes of New Spain, but laborious and devoted to their fields (9, p. 126).

What is known of the *Aztec* and the *Maya* civilizations, with their elaborate social and religious systems, their architecture, their calendar, and their hieroglyphics, betokens a very high development along certain lines. Authorities differ as to whether these attainments are wholly indigenous; Tylor inclines to the view that there are traces of Asiatic influence (see art. on 'Mexico,' in Encyc. Brit.); others, like Brinton, hold that the growth was wholly an indigenous one (9, p. 43). However that may be, at the time of the discovery, America had advanced well beyond the stone age, and though metal tools were few, the exactness with which buildings and towns were constructed, and the skill in various arts, among peoples with very varying cephalic indexes, point to the impossibility of a classification of American tribes on the basis of psychic capacity. Environment is the great determining factor.

The same general type of religious expression prevails, with its culture hero and creation myths, the rich symbolism of Shamanism and secret societies, and the increasing power of priests and shamans, a power not greater, however, says Brinton, than that of the Christian priesthood in many European countries. From birth to the grave, the life of a Pueblo dweller was a series of initiations, adorations, and propitiations, in which the religious spirit behind the grotesque and gruesome form gave the rites a lofty significance that our civilization has been unable to grasp, entering, as it did, like Pompey of old, into the holy of holies and finding it empty. The training of the children was a strict apprenticeship, but so natural and gentle the process, that nature and inheritance seemed the only factors at work. Moral principles were stamped in with dramatic vividness by myth and story, and respect for elders was given a primary place.

F. C. Spencer (73, p. 88 *et seq.*) speaks of the stagnation in culture among the Pueblos at the present day as due to the slavish imitation of tradition and the lack of inventiveness. This is a remark of general application wherever primitive peoples are concerned. Spencer has merely described in detail one instance of arrest in racial development. But thus far had these Indians advanced by virtue of their own indigenous motives; and all that may have been needed was the reviving touch of some true reformer, who, near to the heart of the people by long years of fellowship, would devote unto their deliverance all the impetus drawn from a higher culture.

The Spaniards were the first to attempt such deliverance (73, ch. 1). In 1580, forty years after the fruitless expedition of Coronado, three Franciscan friars sought the Rio Grande with the gospel. One went back, the other two were executed for interfering with the Pueblo rites. A later party was received with kindness, and in time some doctrines of Christian-

ity were insinuated into the native religion, and received as a new kind of "medicine." This thin edge of the wedge was driven in deeper, and ultimately the tyranny of the priests led to successive risings of the Pueblos and bloody overthrow of the innovators. Driven to bay at last, the victims of the church militant huddled together in their terraces, and wrapped still closer round them the mantle of their superstition and prejudice. Except for a few Rio Grande villages, where the communal life has been somewhat broken up,

"For the most part," says Spencer, "the elements in the civilization of these villages which so impressed the early Spanish conquistadores, are still present. The markedly superior clothing and ceramics, the exceptional industry, frugality, and cleanliness, the strict monogamy and strange marriage customs, the governing assembly of old men, and the announcement of rulings and orders by the herald from the housetop, together with their underground temples, their religious priesthood, and their strange rites and ceremonies, distinguish them, now as then, from their Indian neighbors" (73, p. 27).

*The Cherokees.* When the colonists first collided with this nation, it occupied all the slopes of the Appalachians and an extent of territory from the Virginias and the Carolinas to the Mississippi, a magnificent expanse of mountain and forest, valley and stream, through which they hunted and pursued their fierce foes, the Shawnee and the Iroquois. The life of the Cherokee was a pursuit of glory in the chase and in war; an existence of boundless freedom, with not a care beyond the wants so readily supplied in nature. He was as brave and enduring in war as stealthy and treacherous, but "his confidence once secured, the unselfishness of his friendship, and his scrupulous honor in payment of just debts, as a rule would put to shame that of his more civilized Anglo-Saxon brother" (68, p. 372).

It was not long before he became sufficiently acquainted with the gradually approaching fringe of civilization to learn the doubtful benefits of its trade. Liquor played its usual part, but no lasting advance in culture was made. Nearer and nearer the "new American" drew, until, at last the Cherokee realized, when too late, the danger pressing upon him. And now began the death-struggle, against rifle and against treaty, for the homes of his fathers. Between 1721, in the colonial period, and 1868, forty-seven treaties, involving transfers of over 126,000 square miles of land, were negotiated with the Cherokees by the colonial and Federal governments, the treaty of 1835 removing them entirely to the west of the Mississippi. The successive encroachment of the States, and the persistent intrusion of white adventurers, served, naturally, to bring out the ugliest qualities of the Indian; but nevertheless, from 1791, the date of the second Federal treaty with them, by which provision was made for the supply of farming implements, "the progress of the Cherokees in civilization and enlightenment was rapid and continuous" (68, p. 373). So much so, that some thirty years later they were declared fully able to do without government aid. In 1827, a constitution was adopted, establishing

legislative, executive, and judicial departments of government, and this government was duly administered until 1830, when Georgia crushed this little state within a state by threatening to formally appropriate all the land "permissively held" by the Cherokees, if this presumptuous constitution were allowed to stand. Though forbidden to hold any more elections, they continued a semblance of their republican government until their removal to the west, when the constitution was fully re-established and enforced. The report goes on to say that this removal put the Cherokee civilization back by at least twenty-five years, sacrificing as it did, upwards of a tenth of the population and so demoralizing property rights as to discourage the zeal and industry of the people in further accumulation. Yet even five years after the removal, the population was found to be again on the increase; the people living in good cabins, with greatly improved farms, and learning to provide for the future; eleven common schools existed, superintended by a native, attended by some five hundred pupils, and supported wholly by tribal funds; thousands could speak and write English fairly well, some had good libraries and showed good taste in literature, while in ordinary life the rank and file were shrewd and intelligent and showed a general desire for improvement. Then came the devastating blasts of the Civil War, reducing the population from 21,000 to 14,000, and turning their well-cultivated farms into a smoking waste. Again the spirit of this remarkable nation was tried and proved, and to-day, according to the Commissioner's Report for 1905, the total number of citizens of Cherokee blood enrolled up to July 1st of that year, was 31,275, including Shawnees and non-registered Delawares (p. 600).

*The Iroquois.* The Iroquois Indian council, according to Hale (34, Introd.), was the most independent and free-spoken of gatherings. The famous league of these tribes, formed about the middle, it is believed, of the fifteenth century, exceeded all former, or, in fact, all other known Indian confederacies in aiming to be a federation with a system of tribal autonomy that expressed a very lofty spirit of government. And the persistence with which the Onondaga hero strove to overcome difficulties shows other traits than those usually ascribed to a savage tribe, for, after the completion of the federation of the Five Nations, embassies were sent to the Cherokees and to the Ojibways and other Algonquian tribes, inviting them to join this peace league. The Cherokees, hereditary foes of the Iroquois, though of the same linguistic stock, refused; but with the Ojibways an alliance was formed that was only broken by French influence two hundred years later.

"Hiawatha's conceptions," says Hale (34, p. 32), "were beyond his time and beyond ours, but their effect, within a limited sphere, was very great. For more than three centuries the bond which he devised held together the Iroquois nations in perfect amity." Moreover, it was extended to include many distant tribes, and the Iroquois territory became, in fact, a "Great Asylum" of Indian tribes.

But not only was a league formed, with a purpose as wide-embracing as that of the most ardent and sincere of the signatories of the Hague Conference to-day, but the readiness of the people to accept and utilize an agency of civilization when offered not for destruction, but for

preservation, is seen in the compilation, at the instance of the chiefs of the Great Council, of the 'Book of Rites,' an Iroquois Veda, comprising the accounts of the ceremonies of installation and condolence, the functions of the Great Council. The English missionaries had reduced to writing the Mohawk dialect, and not long afterward the chiefs conceived that the innovation would be a good device for preserving their most sacred traditions. A Mohawk chief is said to have accomplished the work. There is also a part in the Onondaga tongue, recording the speeches of condolence addressed by the elder nations to the others on the death of a chief. Hale speaks of only two extant copies of this book, a chance discovery on his part (34, ch. 3), and to him we may refer for a detailed account of the contents. Besides the condolences and the installation, the same ceremony included also the reading of the archives of the Federation, and the hymn, or *karennia*, said to have been composed by the founders of the League, which eulogizes the dead fathers and their wisdom, opening with salutations, first, to the 'Peace,' the blessings of which the League has brought to them, then to the kindred of the dead chieftain, and finally to all the braves. The hymn then invokes the ancient laws of the fathers, and closes with an exhortation to listen to the ancient wisdom. It is a true 'national anthem,' and Hale remarks that "a comparison between it and other national hymns, whose chief characteristics are self-glorification and defiance, might afford room for instructive references" (34, p. 63).

The laws of the Iroquois League are an interesting study and well deserve to be incorporated in a history for their own special use, or for a school text-book. Zeisberger, speaking of the system of councils of the League, says that, as distinguished from the Algonquins, the Six Nations "became a political and a military power; . . . their conquests extended in every direction" (34, p. 68). One statute was that inter-tribal war should not arise from the occasion of private offence, as murder between tribes. Thus was inter-tribal strife averted, say the annals, for more than three centuries. Another law abolished the extravagant and revolting customs of burial and re-burial. Previously, in various tribes, bodies were kept unburied during a long lamentation, or were periodically exhumed for a new celebration, the whole thing being as dangerous and disgusting as it was expensive in the matter of gifts to the dead. But the Book of Rites ended this by an injunction to the following effect: An official delegation should bear to the house of the deceased some strands of mourning wampum, holding which the leader should address to the mourners, in the name of the whole people, words of comfort, after which "they shall be comforted and shall go on with their usual duties" (34, p. 73).

Most of us have gathered from our school-books of colonial history such an impression of the Six Nations that the very name 'Iroquois' is a synonym for incarnate savage cruelty. But, according to the uniform testimony of those who knew them best when they were in peace at home and not inflamed by hate and fire-water, these Indians lived the most kindly and helpful of lives. Beggary and poverty were unknown, and courtesy and generosity to the stranger were as spontaneous as relief and comfort to the sick and mourning of their own people.

*The Sioux.* This nation was evidently in a lower grade of early barbarism. They were adepts in sign language, and

"masters," says McGee (55, p. 169), "in a vaguely understood system of dramaturgy or symbolized conduct," perhaps in an early stage of development toward occultism like that of the Orient. Their implements were of stone, wood, bone, and horn, their dwellings much inferior to those of the Mandans, but erected with the most elaborate rites; their sports were both for diversion and for religious purposes, and their music was the chant and simple melody with drum, rattle, and flute, rhythm being strongly marked.

The great ghost-dance of the Sioux was one of the chief causes, or occasions, of their worst outbreaks; but the record of treaties and promises, cutting down of supplies, and all the incidents of hasty development, are even more marked here than in the case of any other nation. Records of the Government dealings with the Sioux, with accounts of the outbreaks of '62, '76, and '90, whether described by Helen Hunt Jackson (43); or by Mooney (58), show abundant cause for complaint by these Indians as to the way in which they were being civilized. One grievance in 1890, not touching bodily wants, was that their children were taken to the east, civilized and educated, and when sent home in the garb and mind of the Anglo-Saxon, there was no provision made on the reservation for their employment to the good of themselves and their people (58, p. 837).

*The Mission Indians.* These tribes showed less power of resistance to government methods of civilization than did the more warlike people of the north and east. This was probably, in part, due to their previous state of tutelage under the Franciscans.

The mission system of the friars was strictly paternal but had many excellent features. Municipal self-government and native supervision of labor were steadily furthered. The Franciscans insisted on a settled mode of life, and gathered the natives round their mission where they were given work and trained in cattle-raising, gardening, irrigating, and various handicrafts, as saddlery and shoe-making, forging, spinning, weaving, etc., and gradually christianized, at least nominally. The natives were very fond of games and music, and the padres thus taught them many things in a social way. Dancing was a favorite pastime in some of the missions, and great pains were taken to teach violin and other music (4, ch. 7).

Reference may be made here to an even better example of this method, in the work of the Jesuits in Paraguay in the latter half of the 16th century. At the time of the fall of the Spanish power, there were upwards of half million families gathered into forty-seven villages. As soon as sufficiently civilized and showing capacity for self-government, ownership in severalty was granted and the right to the products of individual labor, and an attempt was made to teach self-government by allowing the people to elect their own magistrates. They were successful and happy, says Blackmar, "until they came in contact with the selfishness and avarice of the European" (4, p. 118). These Jesuit missions were centres of civilization and education, in

which a skillful appeal was made to the habits and the imagination of the native.

The great weakness of the mission system in the southwest was that which appears in another form to-day; namely, that it treated the neophyte too much as a child, as a minor, and failed to develop economic independence. Moreover, the strict routine of the mission life was too much of a change from the free life of the wild. But in the process of secularization by the Spanish and the Mexican governments, the Mission Indians of California were almost ruined, and, according to de Mofras, in eight years, from 1834 to 1842, the population was reduced from 30,650 to 4,450, in such a characteristically governmental fashion were the measures for converting the missions into pueblos executed (4, p. 142). Only about 3,000 of the Mission Indians survive to-day.

With all its faults, "no other system," says Blackmar, "came so near accomplishing the reduction of the barbarous races to a state of civilization as that of the padres of California. . . . Certainly one thing was accomplished: under the supervision of missionaries the pioneer work of a great state was begun. Considering that there were but a handful of monks to organize and superintend the work, that they worked under so many disadvantages, and that they received but little substantial aid from the civil or military authorities, the result of their occupation of California for the period of sixty years is indeed marvellous (4, p. 151). But, as he says elsewhere, the system rested on the theory of no contact with other races.

The same author remarks that a visit to such a school as the Haskell Institute convinces one that the Government of the United States is adopting, after a century of experimenting with the Indians, the general principles of the system of the Franciscans.

The Pueblo municipalities broken up, the Mission Indians almost extinguished, the Apache, the Comanche, the Iroquois, the Sioux, the Cheyenne, branded as the deadliest of bloody savages, all the tribes of the east coast, who, without exception had extended hospitality to the explorer, aroused to steadfast enmity, it is hard to see how such approaches, bringing out, as they did, all the worst qualities of savagery and barbarism, invariably, as E. S. Brooks says, taking it by the "hot end" could have had any other effect on the aborigines than an arrest of development.

"It must be evident," says Brooks, "that the American Indian, when first known to the European, was on the high road to civilization. . . . A free man of the forest and the plains, a citizen of a sylvan republic, a home-lover, with a nature capable of the highest courage and endurance, virtue and honor, with a mind restricted in its workings, but singularly childlike and imitative when brought into contact with higher intelligence" (11, p. 175), many notable instances clearly prove that, protected from promiscuous intercourse with higher races, and guided by sympathetic teaching, the Indian might have evolved a fairly high type of culture.

*Present conditions and needs.* The day is passing for bare-faced exploitation of the Red Man. His numbers are probably slightly on the increase on the larger reservations and the authorities are awaking to a sense of the nation's responsibilities in this direction. The present commissioner of Indian affair recognizes that what is needed is not transformation but improvement. "The Indian," he says, "is a natural warrior, logician, artist, and we have room in our social system for all three" (Report, 1905, p. 12).

And yet there are still some localities where the proud brave and the last scene of his weakening struggle are but a barren, starving, remnant. The report of Carl E. Kelsey, special agent for the California Indians, shows how the few thousand survivors of the once flourishing coast tribes, victimized in no less than eighteen broken treaties involving five and a half million acres of reservation and payment to the value of one and a half million dollars, are now cooped up in a half-starving condition on rocky slopes and desert wastes that no white man wants. More than three-fourths of the allotments in N. E. California are unfit, says the Report (45, p. 15), for human habitation. Less than 30% of the children of school age are being taught (45, p. 19), and such teachers as they have are individuals who have squeezed into the civil service as a last resort, but know practically nothing of the Indian.

For the relief of the starving Campo Indians some \$7,000 was raised in a recent year from various sources, and through the efforts of the Sequoyah league an appropriation of \$100,000 for the relief of the California Indians has passed Congress. But it is clear that unless the Indian can be confirmed in a home of his own, free from fear of eviction, these gifts are only pauperizing him.

The time is also passing when education of the Indian shall consist in giving him a foreign culture-stuff out of books, modified according to a superficial notion of the way he can apprehend it, a foreign folk-lore, and foreign ideals of manhood and womanhood. Yet the present system is by no means ideal. There are between 30,000 and 40,000 Indian children of school age in the United States, and in 1905 there were 25 non-reservation schools, 93 boarding, and 139 day schools, besides 6 public schools with which contracts were made. The Mission Schools number 45, besides 10 contract schools, making a total of 318 purely or partially Indian schools with an enrollment of about 30,200. The total number of employees in the school service was 2,416 whites and 602 Indians (Report, 1905).

First in the development of an improved system, came industrial training, as the expression of our conviction that a better mode of access to the latent mental powers is to be found in

the training of those organs whereby the mental powers are first expressed, than in a knowledge, as Commissioner Leupp says, of the geography of Asia and the principles of cube root. But the native inheritance was still despised, and the native hands were made to work in a way that we, not the native instinct, prescribed. Now we find a movement for encouraging the revival of the real Indian handiwork; blankets, baskets, and bead-work are finding a place on the school programme, and efforts are being made to teach the original designs in basketry and pottery.

At the Lewis and Clark Exposition one case of Indian exhibits contained wholly old-time articles, such as buckskin dresses, fire-sticks, etc. The Navajo woman's hand has not lost its cunning, though it can hardly hold the market against the "genuine Navajo blanket" of the New Jersey factories. Even the starving Mission Indians of California earned in 1904-6, through the help of the Sequoyah League, \$811.50 by their basketry, the old native dyes and patterns being used instead of the imported (70). In 1903, the Mohonk Lodge, Oklahoma, sold over \$5,000 worth of native goods as against \$1,500 worth a few years ago. Miss Sibyl Carter has organized lace-making classes on a number of reservations, and, in 1900, under her direction, the Indian women sold over \$5,000 worth of lace. Several natives are putting a practical education to good account, as Miss Angel DeCora, who teaches aboriginal art at Carlisle, Miss Arizona Swayney, a graduate of Hampton, and at present teaching there native pottery and basketry, Francis La Flesche, an Omaha who has done good work in preserving Indian music, Charles Soxon, and others. (See Lake Mohonk Conf., Zayante Indian Conf., and other reports.)

The movement in this direction is much less noticeable across the border. In British Columbia, according to Inspector Green, "very little effort is being made to preserve and develop the old Indian handicrafts." There are only two or three old women now alive who know how to make the woolen blankets such as the chiefs used to wear, and the young people are not learning. So with the basketry. Every tribe had its own peculiar stitch and did really beautiful work, but in only one or two schools is any attempt being made to revive the old basketry with native patterns and native colors. The legends, too, are hard to discover, and will soon have passed into oblivion.

The course of studies recently prepared by Miss Reel embraces, besides the three R's, and geography and history, the following subjects: agriculture, dairying, horticulture and nature study; carpentry, painting, harness-making, caning, blacksmithing, engineering; cooking, housekeeping, laundry, sewing; upholstering, shoemaking, tailoring, basketry; physiology and hygiene, and music. The course appears to be eminently practical, from our point of view, for those tribes somewhat well advanced beyond the tepee and the blanket; but the theorist would modestly ask a few questions. Is this course devised from the point of view of the present stage of culture of the Indian or from that of the white man's conception of what the Indian must become in order to be called civilized? Miss Reel, in introducing the course of study, says,

"One of the needs of the Indian school service has been a uniform course of study, in order that each school may know what to teach" (Report, 1901). Can there be a uniform provision made for the three hundred schools at present among the Indians? Some fifty-nine linguistic stocks have been recognized in North America (9, p. 57); customs differ widely; each great nation has been studied by some specialist in that field, as Cushing among the Zunis, Matthews among the Navajos, etc. Yet the Department of the Interior meets the needs of all at once by a blanket curriculum administered by its employees, four-fifths of whom are whites, while the actual teachers are prepared by no special training in the needs of the situation they have to deal with.

Of *child-training* among the American aborigines, the accounts are somewhat meagre and unsystematic. Ethnologists have not devoted much attention to this subject in itself, and the popular opinion has been that the Indian child grew up without instruction. From the articles on child-life and education by Mooney and Mason, respectively, in the "Handbook of American Indians" (14), some of the most essential facts are brought together. Many features that are common to all primitive peoples, with local variations, have been already mentioned in other connections; among most Indian tribes there is great fondness shown for children, and the relation of parent to child, says Mooney, brings out all the highest traits of Indian character.

The native systems aimed at manhood and citizenship. The child was the pupil of the tribe, not of the parent alone, and was spurred on by example, and by motives of pride or shame, by flattery or dispraise, but corporal punishment was rare. Among some tribes, an infant name is given to the child, to be replaced later by a name of gentile or totemistic significance. Though infanticide, especially in the case of deformed children, was not uncommon, children spared were generally treated with great affection by parents, nurse, older children and others, but ignorance of common sanitary rules still leads to great infant mortality.

Various ceremonies were observed in the life of the child, such as at the time of the first ear-boring, the first tattooing, and at the initiation into brotherhoods or priesthoods. It is said of the Powhatans of Virginia that they made the boys men at the age of about ten years, by rendering them unconscious, so that they should wake up as new creatures, forgetful of all childish things. This suggests the *Zauberwald* of West Africa. But the most interesting feature in this connection is the totem vigil, common in the eastern and central regions. This the fifteen-year-old boy endured in the solitude of the forest, preparatory to his initiatory rite, thereby to gain a vision of his future "medicine" spirit, or totem.

Children of both sexes delighted in toys, games, and pets, and among the Zuñis myth and tradition were impressed on the young through wooden dolls and figures. Thus the Indian's intense love of home and tribal tradition was fostered, as in later life the trophies of war strengthened his pride of race.

The native "courses of studies" comprised, besides the ancestral economic pursuits, training in speech and oratory, art, customs and etiquette, and tribal lore. The industries were systematically taught by parents or grandparents by means of toys and play, and as soon as able to control their movements, boys and girls began to accompany, imitate, and help their fathers and mothers. Even the Eskimos were very diligent in preparing their children to meet every emergency of life, in canoeing, sledding, hunting, etc.

So rapid and radical was the change enforced by the aggressive pedagogy of the colonist and the missionary, that, says Mason (14, pp. 415, 416), "the Indian passed at once into the iron age; the stone age, except in ceremony, was moribund. . . . New social institutions, manners, customs, and fashions, not always for the better; foreign words and jargons for new ideas and activities; new aesthetic ideas; changes in the clan and tribal life; and accessions to native belief and forms of worship borrowed from the conquerors," were some of the marks of the new régime.

Brief reference has been made to art and industry. Indian games have been studied only by the anthropologist; a rich field is offered here to framers of a normal training course for Indian teachers. As to music in the schools, many private individuals have done much to arouse an interest in the indigenous melodies, but in the course of studies no provision is made for preserving and cultivating the native songs. Patriotic songs of America are advised, with introductory remarks in school about the life and work of the author; but study of real Indian song is left to ethnologists and to 'Schools of American Art.' The Indian sang from the cradle to the grave. Music was his very atmosphere, and in joy or grief, in sport or war, in personal narrative or solemn ceremony, he poured forth his feelings, regardless of artistic effects. The use of our instruments interposes an obstacle to his comprehension analogous to that due to the use of a foreign tongue in language lessons; the means stand in the way of the end. (See 32, p. 114, *et seq.*)

The Wa-Wan Press, founded by Arthur Farwell, of Newton Centre, Mass., has harmonized a large number of Indian melodies; but, while professing to keep true to the native motif, these compositions are too elaborate to be of much service in the primitive scheme. The aim of this movement of Farwell's is avowedly the development of a school of American Art, rather than of the purely native modes of expression. Lofty counsel to young braves and maidens forms the theme of many

of these songs; consciousness of a lost cause and a doomed race breathes pathetically through the melody of the Ghost Dance; all are didactic and hortative, and we are told that the slightest defect in modulation, rhythm, song, or motion was instantly and severely reprimanded.

The newly-organized southwestern branch of the Archæological Institute of America, of which Mr. Charles F. Lummis is the leading spirit, has undertaken the task of preserving the wealth of song indigenous to American soil. And besides the well-known work of Miss Fletcher, Prof. Fillmore, Francis La Flesche, and others, the recently published "Indian's Book" (29), compiled by Miss Natalie Curtis, aims, and ought well to serve, to stimulate race-pride, as well as our own interest in aboriginal things. This work contains voluntary contributions from Indians throughout the country, some 150 songs with words in the native tongue and in English, and legends connected with the songs, photographs of Indian contributors, and original drawings made expressly for the book. Such a work well claims a place on the school curriculum, and ought certainly to be a subject of study in all training schools for teachers, native and white, of the Indian. Until but a few years ago, the singing of native songs was forbidden not only in the schools, but on the reservations; and in the Indian schools of the Canadian west, the use of the native songs, as well as of the native speech, is practically forbidden. But on some of the reservations it is found positively essential to the good behavior and contentment of the tribe to permit at least an annual dance, divested, of course, of any revolting features.

In his report on religious work among the Indians during 1905-6, Pres. Slocum, of Colorado College, describes how the Omahas and Winnebagos, after being raised to a fair degree of civilization through the efforts of the Mission schools, were, some fifteen years ago, handed over to the care of government instruction, and to-day not a vestige of Christian culture remains. The children are in utter paganism, the medicine dance is in full swing, and religious work will have to be begun all over again. This relapse the report attributes to the innate craving of the Indian for worship and song and dance, no elements of which were offered him in the Government school (Report, Lake Mohonk Conf., 1906, p. 112).

Again, in nature and nature-study, as in myth and folk-tale, we who have grown so intensely practical do well to beware lest we cherish too hasty a contempt for the devout pantheism of these ancient children who saw God in all things, who revered all animals, whose riotous imagination, in fact, conceived long years ago, a scheme of evolution that might well serve as a basis for the higher and clearer views that we boast of. Why should our Indian schools labor so hard to wean the native

from his beautiful folk-tale, to replace it by one of ours or by some crude attempt at science on the part of a normal school graduate from the east? We know too well how "natural science" is taught in some of our own schools.

If there is need that the teacher know something of the contents of children's minds on entering school in our cities and towns of the east, there is much greater need that the teacher of the barbarian spend months in long and intensive study of the aboriginal child-mind, ere he sign himself to an elaborate course of studies to be applied with the government brush, so to speak, to the exterior of all tribes and clans alike.

A charge brought against some schools of present-day social pedagogy is that they would foster a training for a state of society which does not actually exist, a training out of harmony with the social group in which the individual finds himself. Such a criticism might well be directed against our efforts to uplift the aborigines. Are we not virtually saying to him, 'Come now, you must learn to use your minds to think our thoughts, your hands to make our wares. You don't understand it, but you must copy.' From a more strictly utilitarian point of view, "what is the special gain, either to the race or to civilization," as one of the Sequoyah League publications puts it, "in making a \$20 per month dish-washer of a girl whose mother would have made her a weaver that could make double that amount in basketry," not to speak of the more intimate relation of the latter culture-material to the individual and racial genius? No society ever passed at once into the manufacturing stage, skipping the laborious and thorough course of manual industry; nor is it essential that manual exercises be imported among a people with so many excellences in this very direction. With a more intensive exploitation of these, and the introduction of a few of ours, such as might be really necessary for, and suitable to, the particular tribe and its environment, a more gradual but less superficial development would be insured, further accomplishments in the direction of the prescribed course being reserved for the secondary schools.

The policy generally followed, moreover, in recruiting for these secondary schools, involves the dangers consequent on that unfortunate rift between the old and the new referred to so frequently above. When promising youth are lured far away from their home and civilized according to prescription, the usual alternatives are an opening in the modern world of industry and commerce, with loss of national identity, or, on returning home without the opportunity of putting their training into practice, a reversion to the ways of camp and tepee. All cannot teach under our formal system, government posts are not available for all; so much greater the need of instruction

in and by the tribe, in the light of modern culture, of graduates whose work shall be, scholastic or extra-scholastic, to make the very best of all that is good in the old régime, not to wholly abandon it. The policy of Major Pratt and others, of totally breaking the connection with the home and bringing the pupil out into civilized life, will doubtless hasten the disappearance of all trace of Indian national life, but will not so certainly guarantee the healthy filling up of the gap in the individual life.

Miss Collins notes of the South Dakota tribes that they "always come to a place where they take a backward step; like children, they tire of being good and have to take a little vacation sometimes" (Report, L. Mohonk Conf., 1906, p. 38). And in letters received from Inspector Green of British Columbia, he speaks of the great liability of those who have been a year or more away from their homes to drop back into the old wigwam ways, unless they can persuade their elders to give them the leadership. Up to the third standard, he says, their progress is fairly rapid; after that the work is slow, and parents and pupils alike think that education has then gone far enough.

J. M. Oskison, in a recent article (*Everybody's*, June, 1907), shows some of the results of the transition from the tepee to the cabin. 26% of the babies die in the first year of life, 17% in the first five years, and in the schools tuberculosis is greatly on the increase. Thus, at Pembina, Minn., 27 out of 42 deaths in the year were from this disease; at Leach Lake, 10 out of 122 pupils were sent away tubercular; at Jocko, Mont., though carefully examined and pronounced free at opening of term, 2 out of 52 died during the term, and at Mescalero, N. M., out of 500 on the reservation there were 26 deaths, while the births during the year were 21. At Pine Ridge, S. D., of 393 families, 271 occupied one-room houses, 30 of which had but one window. Many of the windows were nailed down and never opened. And so we find a new aspect of the problem looming up, that of providing sanitaria and open-air camps to rescue the perishing sons and daughters of the lords of the open plain and the forest from the effects of civilization. We seem to take it for granted that it is necessary to move indoors in order to become civilized. "Suppose," suggests the Commissioner, "the Chinese had conquered this country three hundred years ago, driven the whites back, cooped them up on reservations, and fed them on rice." The tribal commune and the reserve alike must eventually go, and the Indian be absorbed into American citizenship; we want him, however, not as a pauper, but as a fully developed Indian, strong in pride of race and ancestral traditions, capable, as an individual, of the very best his tribal commune ever pro-

duced; not trading in the treasures of his past, or parading in his paint and feathers to amuse the tourist and the curio-hunter, but bringing to our complex civilization the wealth of his manual skill, his rich imagination, his love of game and dance and song, his passionate oratory, his deep piety and reverence, and all the qualities the might and brutality of our impact has stunted and arrested, qualities revivified, purified, and made the connecting link between the past and the present.

#### XI. GENERAL PRINCIPLES

In the face of such criticism of civilizing enterprise, it may now be urged that our best policy toward backward races is to let them strictly alone, to give them no taste of the tree of knowledge, that they depart not from the edenic bliss of their primitive condition. But, even apart from the Christian injunction, such a course is impossible. Some influences of civilization must inevitably reach them, and it is usually the harmful ones first; it is therefore incumbent upon us to stimulate the native activities and arouse the dormant race-consciousness, and thus develop independence of thought and action. But this must be a process of development, and most essential is it that opportunity should keep pace with the newly-awakened faculties.

Reference has been made to the striking difference between the laughing-eyed child of jungle or kraal, and the product of the schools. President Hall says: "The best possible test of every human culture is whether or not it can preserve that curious and unique and divine freshness of soul that is the peculiar badge and characteristic of childhood—whether it keeps us eternally young" (36, p. 188). How do our educational efforts abroad meet this test? Let the results so often cited above testify. Fielding Hall bears witness to the ruinous effects, in Burmah, of replacing native ideals in art by foreign. Glaring imitations, with hideous want of taste, result from the attempt to apply native design and workmanship to foreign objects. "The silversmiths no longer find a full demand for bowls, for drinking-cups, and for those plain vessels they make so well and ornament so deftly. Instead, they turn out weird monstrosities of teapots, trays, and other imitations of European utensils which they cannot make and which they over-ornament" (37, p. 174).

Similarly are art and industry prostituted in other lands we have occupied, most of all, perhaps, those of our own Red Men. It is not merely a question of preserving many interesting relics, but one of keeping open an avenue through which to reach the native instinct and through which alone the native faculties can best be developed. In every environment there is

abundant material for early sense-training, and there is no need of the importation of vast masses of culture-stuff. Games must precede work, folk-tale precede history, fable precede science; and of games, folk-tale, and fable even the most primitive tribes have no lack. We are too utilitarian, because we are in too much of a hurry and have stunted our own powers of imagination. We want to put the savage into the civil service or the labor market in the guise of an Anglo-Saxon. We want to make his country self-governing, but according to our own ideas of self-government.

First and foremost, since it is folly to go out as an apostle of twentieth-century culture with fixed *a priori* notions as to the worth of our own materials and methods and the worthlessness of those of the barbarian, then, on simple pedagogical principles, anthropology should step in and equip the apostle of education with at least a general comparative knowledge of race-development and a detailed acquaintance with the people he seeks to lead. A special school should supply a knowledge of the contributions each primitive race has made to world-culture and has yet preserved unmodified; a knowledge of their art, folk-lore, traditions, superstitions, polity and jurisprudence; of their present environmental conditions, their cultural assets and liabilities, and their possible place among the nations-to-be. President Jefferson, as long ago as 1803, was wiser than many educators to-day in his policy toward primitive races. (See 14, p. 171.)

Miss Kingsley writes: "The knowledge of native laws, religion, institutions and state-form would give you the knowledge of what is good in these things, so that you might develop and encourage them; and the West African, having reached a thirteenth-century state, has institutions and laws, which, with a strengthening from the European hand, would by their operation now, stamp out the evil that exists under the native state" (48, p. 327).

An instance showing the need of more thorough study of the native custom is found in the current interpretation of the Bantu "Lobola," namely, that it is a wife-purchase. The truth is, on better authority, that the dowry cattle are held by the father or guardian of the wife as security against ill-treatment of her by her husband. We are told that as a result of this custom there is less wife-beating in Kaffir-land than in Scotland (8, p. 22).

Another frequent cause of native resistance to, or relapse from, our culture, is the working of the "*Mutterrecht*." The African of the West Coast, for example, like many Indians of North America, loves and obeys his mother above all others, and office follows descent through the female line. Now, with our so often mistaken notions about the status of primitive

woman, our methods neglect her, preach a family relationship often contrary to the native ideas, and estrange the all-influential matron from the "white man's palaver." "The longer one studies the subject," says Mason, "the more he will be convinced that savage tribes can now be elevated chiefly through their women" (54, p. 238). Emphatically is this true of the North American Indian, as even a superficial acquaintance with their life shows.

Other native institutions have to be considered. For instance, the power of the jungle doctor, the "yassi" of the West Coast of Africa, as well as of the hereditary chieftain, as an ally of law and order, may be too suddenly broken. Several writers describe the mighty influence of the "Porro" of the west-coast Mendi, a secret society for males, and of the "Bundu," for females. Much evil as there is in these Porro practices—and they may not be worse than the blackmail of Hunchakist or Mafia—to proscribe them prematurely is to leave the native unrestrained by any wholesome fear or reverence. Dorothy Cator says of the Porro that it "takes the place of our vestrymen, county councillors, sanitary inspectors, police game-keepers, and I don't know how many other authorities, who in our country are all supposed to be working for the public welfare; but in such a quiet, unobtrusive way that it is difficult to realize the power it wields" (17, p. 192). Mention has been made of the salutary function of some secret societies in Melanesia. While none would question the immorality of exploiting the weakness of a people, there is doubtless often great opportunity of getting into rapport with the medicine-man or the secret order and through them reaching the confidence of the people. A school for chiefs is a regular institution in India. Could not a school for fetich-doctors be made a wholesome means of raising these deluded creatures into instruments of order and cleanliness, instead of driving them into the bush, there to work subtler evils?

A letter recently received by the writer from John W. Robinson, a graduate of Tuskegee, who is in charge of an agricultural school in Lome, Togo, says, in part:

"The people are very superstitious, and they cling to their superstitions. And why not? It is their religion. It is a great corrective power. The native who has no respect for the native superstitions is usually vile and worthless and has no respect for law or order of any kind. . . . Take a criminal before the German courts of justice here, and he will not confess his crime, because he says the white man has no way of finding out the truth. Take the same man to a fetich confessor, and the criminal confesses forthwith because he thinks the fetich possesses the power of finding out the truth."

The capacity for leadership, moreover, shown by such chiefs as Toussaint and Souloque in Haiti, suggests possibilities of depending on the native hereditary chieftains for law and order in the tribe, under the suzerainty, not the interference, of the foreigner. The Bechuanas and the Veis are not the only tribes that have produced leaders who needed only encouragement and protection from the evils of modern traffic, to bring their people forward to the confines of an indigenous civilization.

The spirit of industrial education is everywhere abroad, and is bringing good results; but until labor conditions are adjusted in greater fairness to the native, and an outlet provided for his effort, so that he becomes a necessary member of the social structure, instead of a dangerous problem, the good results of even industrial education cannot be permanent. The investigations of the South African Native Races Committee, a few years ago, elicited from capitalists and promoters who desire cheap native labor a number of letters, of which the editors say:

"Underlying many communications on the subject is the assumption that the native is to be prepared by education only for a life of toil useful to the whites, an assumption for which there is no justification. That the native should aid in the proper development of the country, to quote a common phrase, is true, but this is often understood to mean training and treating him as if he were a mere tool. Much is said about teaching him the dignity of labor. This lesson is not for him only; it appears that no inconsiderable part of the white population, especially in the Transvaal, have hitherto failed to appreciate it. There is a proneness to dwell on the indisposition of the native to engage in hard continuous work. Such indisposition is not confined to the native" (71, p. 244).

Very often, indeed, the fact that these captains of industry are as much opposed to industrial training as to academic, in so far as it affects the youth as a cheap laborer at the mines or on the plantations, throws some light on the unselfishness of their motives and the educational value of their criticism.

One great evil is very noticeable in the colonies, and that is the "tipping" custom, a practice obnoxious everywhere, but aggravated by differences of race and color. Until the time comes when regular work meets adequate salary, and this cringing dependence gives way to fixed wages for fixed services, among all classes, the native will be in bondage to a system of graft that must indefinitely postpone the day of responsible self-government.

In view of the fact that the sense of property-rights, so strong in most barbarous races, has greatly declined since they came into touch with civilization and became mere landless hangers-on, a prominent feature in every school should be a cultivation of this sense of ownership by means of school pro-

duce, for instance, for the preservation and proper use of which the pupil should be held responsible. Miss Kingsley believed that the true negro is "a logical, practical man, with feelings that are a credit to him, and are particularly strong in the direction of property (48, p. 318). Mr. Robinson, whose letter has been referred to, also finds that the African grasps and develops the sense of property faster than anything else.

Modern educators are awaking to the value of folk-lore in our own schools, as a corrective of the increasing materialism of the present day; our dread of fable and superstition is often inconsistent, and much of the barbaric *Aberglaube* could be made propædeutic to a higher faith of the simple, trusting kind so sadly declining in our own bustling centres. The savage's ever present sense of the supernatural needs correction, not effacement; thus the Hebrews were led through the wilderness, their crude anthropomorphism gradually subliming into a clearer spiritual faith. Savage nations have their own Old Testament; why burden them with ours, except in so far as it leads up to a higher revelation? To reduce to writing, in the native vernacular, any given body of tribal tradition, eliminating the baser features, and emphasizing the better, such as those touching the great significance of child-bearing, puberty, proper sex-relations, and marriage, would not be the least service an educator might perform for a backward race.

It must also be borne in mind, as write the South African Native Races Committee, that

"No system of education can be satisfactory for a highly emotional people which does not minister to their feelings, and develop their rudimentary artistic sense" (71, p. 244). President Hall says of the Negro, "He has a contribution to make to our race. He is and can do what we are and cannot. He has a rare gift in the wealth of his emotional life, a strength, depth, and range of feelings that we lack. No race is more hearty. These elements of the soul are oldest and most generic, and are often lost with intellectual development. In this respect he is a more primitive and original edition of human nature than we are." (Unpub. Lectures.)

Many negro melodies that we so much enjoy are traceable to the African tribe, and many fêtes and carnival customs, only recently discontinued here, are said to be clearly survivals of the African election to the kingly office (1).

As to the language question, educators like Leitner, Junod, and others, insist that a foreign tongue, being an impossible vehicle for the imagination of a child, prevents mental development. With the native tongue, says Junod, something else will die out that cannot be replaced. Why not preserve the native nomenclature and all such associations as will tend to keep alive the national spirit and love of home? It is argued, naturally, that among the lower races any attempt to use the

native dialects would be a waste of time. It may simply be asked in reply, a waste of time in doing what? In acquainting the native with the form of civilization that has with such little waste of time exterminated races in the past? A tribe that has no speech or lingo available, nearer its heart than any foreign tongue, is surely destined to disappear; but such tribes are few. Junod says that in all of South Africa there are only three main languages, the Zulu, the Sutu, and the Thonga, and only two or three dialects in each. In each colony only two at most would have to be dealt with. The general method of this South African mission, as has been said, is to use readers containing folk-lore, kraal tales, elements of science, a little general history, and local geography. English is not used below the fourth grade, and a little vernacular is kept throughout (44).

Further, language lessons, in the form of reading and writing, are begun too early. These very exercises, as we have seen in the case of many such efforts among Africans, Papuans, and others, are so foreign to the native mind, that the means of instruction become a sort of fetish, just as in later life literary attainments are prized as culture in themselves. And the compilation of text-books for the purpose of such instruction, even if based on native material, usually involves a foreign interpretation of that material, so that the primitive mind is filled, for a time, with extraneous, ill-assimilated notions, to the obstruction of the development of the naive concept. Instruction through media foreign to the native mind, whether in language or in industry, obstructs the development of the native faculties; but this is more emphatically true of instruction in language, for here the imagination is stunted and the hand applied to meaningless uses. For all children, the ear-and-mouth method of instruction in language is the most natural; the eye and the hand come in much later. In the case of the savage child, then, these factors have much less place in early language training. The simple fact is, our educator, zealous for the uplift of benighted races, but unversed in their history and psychology, has nothing to offer them but the staples of our own schools, and he clings to reading and writing as tenaciously as did the scholastic traditions of our own race to the classics, and often mistakes the mere reflex interest of mental activity for a wholesome intellectual hunger, or a morbid anglomania resulting from contagion for an awakening sense of the value of what the native hears called culture. It is an interesting possibility that, elaborate as our modern curricula are, the study of primitive conditions may some day show us some vital omission in our programme for child-training. We even now know that, richly as we provide for "making a living," many barbarians, according to their light, have long

surpassed us in training for life itself. Our school book papulum should be replaced, in the primary stages, by the revival and continuance of every form of indigenous activity, mental and physical, that is found in the early years of savage life, while as yet unperverted by the adult. Here is the vantage-point. The original expression of such activities has degenerated, in adult life, into base and degrading forms; the task of the educator is to get back to the source again and provide a new channel for the course of this expression, to lead up these primitive activities to a full realization of their moral, ethical, or religious significance.

And in this connection it is to be remembered that primitive child-training, especially among our Indians, was a family and tribal concern, not a professional; hence the danger of departing too abruptly and too far from the native custom in setting up our formal class methods with a professional teacher. It tends to a separation between home and school, and to the arousing of the suspicions and prejudices of the elders of the tribe. There is reason to believe that, for the children, a wholly non-formal instruction in the home, or in groups of homes would be best; while a formal system of school classes would be safer and more effective among promising and influential adults and adolescents. Adult education, in fact, is a live question among ourselves.

Finally, the question of language leads us to speak again of that perplexing problem of securing permanent advance, of preventing that relapse, or reversion, so often referred to above. This matter needs much fuller investigation and treatment than can be devoted to it in a preliminary study such as this. For, apart from the aspects of it that are common to all child-life and training, there certainly operates, in the case of the savage, a biological or phylogenetic factor, so that even a boarding school or an outing system, insuring absolute separation from the tribal environment, is no guarantee of a permanent redemption from barbarism. Not only is there a liability, in the next generation, to reversion through intercrossing with the parent stock, as the biologist would say, but even in the same individual, thus separated, the adolescent and adult tendency toward the aboriginal can be overcome only at the cost of something both individual and racial that ought not to be lost. The savage thus redeemed is a captive; he is useless to his own people, and must live the life of a stranger and foreigner. The scattered instances of successful careers under such circumstances, whatever light they throw on the question of the intellectual capacity of the race concerned, do not touch the great question of elevating a degraded, or quickening a stagnant, condition of society. Such individual methods are,

fortunately, impracticable on a large scale. The success of such enterprises as Duncan's among the Indians at Metlakhatla (76), the progress of many African peoples, as the Veis and Basutos, the gradual approach of despots like Persia and China toward constitutional government, as well as the rise of Japanese power, all show that the development of a people must be from within and on their own ground, in response to a stimulus that comes from without.

There is a more wholesome way, then, of meeting the relapse problem, than that of separation; namely, that of preventing the spurious advance that occasions it. That is to say, the racial instincts must, at every stage, be given opportunity for expression. This is impossible where the media are foreign; where, for example, a foreign tongue has to be learned through formal language-lesson methods in the imaginative stage of life when the mythopoetic instincts demand free play; and, most of all, where the surging currents of emotional life find, in the early teens, no expression through song and festival, but a Gradgrind system of facts and utilities is administered as if to dry up the very source of indigenous expression. Nothing of the old Greek notion of katharsis of the feelings finds a place in such a system. No preparation is made for the pubertal crisis, and at that stage of physiological and emotional maturity, the "veneered" savage or barbarian is forced back into his primitive condition, somewhat, we might say, as one who has acquired a foreign speech is driven, in outbursts of passion, to the dialect of his fathers.

On the other hand, if the educator, forearmed with some knowledge of anthropology, sought to get at the source of the native instincts and impulses, and in this knowledge supplied carefully selected native material for every stage of development, there would be less occasion for the question one often hears from a visitor to a mission settlement as to what has become of the bright pupils that promised so well on a former visit. The elements of indigenous culture already described, laws, traditions, social usages, tabus, etc., must all be reckoned with, or they will rise up and confound the educator at a later day. If these are interpreted, expurgated, and preserved, not merely as contributions to the Royal Society or the Bureau of Ethnology, but as culture material, the enlightenment of the tribe will no longer be at the cost of naïve simplicity and physical health, but will be in their own hands. The visitor may no longer find rows of well drilled mission-school protégés whose dress and deportment satisfy his aesthetic sense, and whose progress in reading and writing excels even that of the white settlers' children; but the thorough student of the situation will be able to report signs of quickening in the stagnant

environment of the tribe. Too much must not be expected of one generation. It seems reasonable to suppose that plateaux of mental and social organization are necessary for the race as for the individual, for a life career as for a school term. In activity is the safeguard against relapse, activity along a line of native bent and with a native outlook. Let the native industries be developed and brought into the world's market, not overwhelmed with shop-made importations. Let the native's race pride be stimulated, not stifled, by a comparative story of race-development, tracing side by side the beginnings of our history and his, showing the emergence from barbarism on the part of the one, and pointing to similar possibilities on the part of the other. Thus will the indigenous capacities be shaped, not in a mould of our fashioning, but in one of indigenous material, purified and enlarged by the touch of the genius of a higher culture.

Many other phases of this wide subject present themselves, each calling for extended treatment in itself. Secondary education as based on the primary indigenous training; special training of the better classes, as sons of chiefs, the priestly class, etc., with an examination of the "filtering-down" theory in general; the native jurisprudence as a source of culture material; the merits or demerits of tribal seclusion or reservation of flourishing native races, such as the Bantus, as against well guarded commerce with other nations and supersession of the native régime; and the vast question of missionary preparation and mission methods in their pedagogical aspects; such are but a few of the topics that can here only be suggested.

## XII. RÉSUMÉ

No conclusions as yet reached in regard to either structure, physiology, language, art, customs, morals, or religion of backward races, justify the assumption that they are specifically inferior, or for such reason not susceptible to proper educational influences.

The almost universal result of the merely commercial contact of stronger and more advanced with weaker and backward races, as seen in trade and colonization, has been the extinction or diminution and debasement of the latter.

The educational efforts of civilized among backward peoples in the past have, in general, neglected, as worthless, the indigenous tribal culture, or possible culture material. A study of indigenous conditions in some of the best known fields of colonial and commercial enterprise reveals the following facts:

(a) In India, the old methods of individual and group teaching, under sacred tree, by roadside, or in village school, by pandit, maulvi, or faqueer, set up high moral standards and

was in close touch with the home life of the pupil. The instruction in the more elementary of these schools was meagre, and mostly by rote, but was a training for life according to the native standards, and was permeated by a strong, non-professional, personal influence.

(b) These methods have been displaced by a wholly secular government system, the goal of which is academic distinction according to western standards, or employment in the government service. The new system has not succeeded in enlisting the sympathy and co-operation of the old agencies of instruction, and a serious breach has resulted between the home and the modern school. The possibilities have not been sufficiently tested of further developing and utilizing, under the new system, and as a link between the new and the old, the native educational efforts; but the better classes have been alienated, while the less stable elements of the people have been wholly estranged from their racial tradition and have become elements of unrest and sedition.

(c) In Africa, even the lowest tribes are not without notions of child-training. The more capable Bantu races, through whom the other tribes in the South may best be influenced, have definite systems of training, strict notions of sex and marital relations, and abundant material in art, folk-lore, and industry to serve as a basis for early education. West Coast races, as the Mandingoës, Krus, Veis, Sereres, and others, separate the boys and girls at puberty, or earlier, and entrust their education to old men and old women, respectively, who are well versed in tribal lore. This training is carried on among the Veis, *e. g.*, in secluded schools and contains many elements that might be preserved and developed, chiefly such as concern the significance of puberty and adolescence. Pubic rites of initiation are of great importance.

(d) In more primitive regions, as in Australia, Melanesia, and Polynesia, however little of real educational notions are discernible, there are yet many things in the art, industry, and traditions that might be incorporated into a plan of training for the native child.

(e) Modern educational efforts in African, Malayan, Polynesian, and other primitive environments have, in general, consisted rather in the imposition of a foreign scheme of instruction than in a development of the native notions. The initiative has generally been taken by missionary enterprise, but the liberty of method thus possible is soon curtailed by the financial necessity of complying with the conditions of a grant-in-aid. These two systems, mission and government, have over-emphasized the aims, respectively, of doctrinal instruction and of citizenship, or, more commonly, mere service, under a foreign dominion.

(f) The too general results of these methods have been an awakening of unwholesome ideals, and a fostering of race-contempt, which have ultimately led to social and political unrest and helplessness, or to a reversion to barbarism.

(g) Industrial education, as the expression of a wiser conception of the needs of backward races, has of late made great progress. But, in the first place, the native industries have been too generally superseded by foreign, and, secondly, the conditions of labor and commerce have left no place in the industrial world for the native and his output, and so have prevented the best permanent results of these efforts.

A study of the primitive condition of the North American Indian and of his relations with the whites from the time of Columbus to the present day, leads to the conclusion that the advance of civilized commerce in America brought about an *arrest of development* in races which were in a stage of middle or early barbarism and which showed signs of a gradual advance to higher stages. The early educational efforts of Catholic missionaries, on the principle of non-contact with civilized commerce, found the Indian capable of rapid improvement even to the stage of self-government.

The great diversity among the aborigines of America makes it impossible to prescribe a course of studies that shall be uniformly suitable for all tribes. Plans of instruction, as well as preparation of teachers, must be made in accordance with the needs of particular tribes and situations, and after thorough study of the tribal history and endowment.

### XIII. SUMMARY OF CONCLUSIONS

The foregoing is but a preliminary study, the aim of which has been to glean information from several of the most instructive fields. The treatment does not pretend to be exhaustive or intensive in the sense in which it would require to be were a scheme of instruction being drawn up for some particular race or tribe; yet an adequate survey has been made, it is believed, to justify the following suggestions:

1. Some of the results of anthropological research should find a place in our normal school curricula, especially if these schools are to be looked to for a supply of teachers for our dependencies.

2. There is need of ethno-educational centres for the equipment of educators of primitive peoples (*cf.* 39). These might constitute departments in the universities, or sub-departments under the control of the chairs of anthropology and education; or might form a branch of mission training schools. (If un-, or inter-, denominational so much the better.) Training in such schools should be made compulsory for mission educators.

3. Great use may often be made of native law, polity, customs, and superstitions, as instruments of law and order, as well as sources of culture-material.

4. No scheme of education for primitive races can succeed that neglects the woman's influence in the family and the tribe.

5. Industrial and commercial training, as such, can lead to permanent benefit only when a place is found in the world of labor and commerce for the native's independent product.

6. The cultivation of a sense of individual ownership and responsibility demands a prominent place in our educational efforts among backward races.

7. There has been too great a neglect of the æsthetic and emotional side of the primitive character. Native art, music, and legend are better means of access to the race-sympathy and better means of expression of race-feelings than foreign culture-material.

7. Wherever possible, the vernaculars should be used as the medium of instruction, English being reserved for the higher stages, as genuine need arises.

8. Literary instruction, in the narrow sense, through the medium of reading and writing, has little place in a scheme of primary education for primitive peoples. Such formal "book-learning" methods, besides being inseparably bound up with a foreign content or a foreign interpretation, involve too great a departure from the indigenous tribal and family notions of child-training. Primary instruction should be in close connection with the native home.

9. The chief causes of relapse into barbarism are to be found, first, in this abrupt departure from native notions and methods of child-training; in the failure of the educator to take account of the racial as well as of the individual factors in the awakening instincts; in his haste to see an adoption of modern customs and externals; in the weakness of the native thus trained, to resist, at puberty, the tendency to arrest of development due to the preponderance of emotions over will and reason; and in the social, industrial, and commercial conditions of modern life that exclude the civilized native from a place in civilization.

10. Finally, the educator of a backward people must be anthropologist as well as teacher, and must possess, as his highest qualification, that broad humanism which knows how to value even the crudest and most rudimentary symptoms of creative individuality.

I beg to acknowledge my indebtedness to President Hall for his suggestion and constant encouragement of this study; to

Professors Burnham and Chamberlain for invaluable criticism and suggestion; and to a number of correspondents, who, like Inspector Green, of B. C., Miss Natalie Curtis, and others, found time, in the midst of many other duties, to answer enquiries so very fully.

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## THE VOCABULARY OF A FOUR YEAR OLD BOY.<sup>1</sup>

By FLORENCE MATEER, Paoli, Pa.

The subject of the following study is the author's brother, named Diehl. He was four years and one week old the day I began my observations. He used only a few sounds at the age of two years, and he was three years old before he began to make any connected sentences in speaking. Even then it was hard to understand what he meant as he usually resorted to signs and imitative motions rather than to speaking.

He is a sturdy little chap who has never known a serious illness, and he has always been accustomed to spending much of his time out of doors. He is unselfish, merry, not afraid of anything, very loving, full of curiosity, and a lover of animals and music. He has a quick perception and a ready appreciation of beauty, especially colors. He has never been required to learn anything, but all his questions are answered as fully as possible.

In making my observations, I took a note-book and arranged all the words he used alphabetically, the different initial sounds each on a different page. For ten weeks I lived almost entirely with him, taking him everywhere I went and thus affording him a broader range of subjects and more experiences to talk upon. No effort was made, however, to induce him to learn new words.

At no time while I was recording his words, did I leave him for a day without having some one take my place. Twice it was necessary for me to leave him for a day, and then his mother carried my note-book with her, recording all words I did not have down.

I even coaxed him to sleep with me, for I knew he was apt to become very communicative after the lights were turned out. This was at least the source of a better knowledge of him, for it sometimes would be half an hour before I could get to making a record of any new words he used. Such fantastic things he told me of, "Don't you 'amember,' Wance, when I was a big papa and you was a little girl?"

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<sup>1</sup>This study was made under my direction, as a graduation thesis at the West Chester State Normal School. I can vouch for its accuracy and the intelligence and faithfulness with which it was carried through.—HENRY H. GODDARD, PH. D., Professor of Psychology and Education.

During this time, I managed, also, to keep him entirely ignorant of the fact that I was watching *him* and taking down what *he* said. This was done to avoid his becoming self-conscious or proud and thus either talking to make an impression, or else not talking at all. I was entirely successful in this particular, and Diehl has never known anything to contradict his statement that "Wance has lessons to write all the time." At first my observations kept me very busy, but towards the end I only began to realize how often we use the same word. During the eighth week I heard but 67 new words, during the ninth, 59, and in the tenth week 51. The whole number of words which he used during the entire time was 1,020. This includes all words which he had used before, all newly acquired ones and all original or "coined" words.

My results tabulated were as follows:

initial sound	nouns	verbs	adj.	adv.	pron.	prep.	interj.	conj.	Total for each sound.
s	70	28	16	2					116
b	60	19	16			1	1		97
k	55	20		6					81
t	32	16	11	4	6	1		1	71
p	51	12	5	1					69
w	28	24	4	4	3	1			64
h	25	11	8	3	4		3		54
m	38	8		2	4				52
a	14	5	13	10		4	2	1	49
f	27	6	8	1		2			44
d	20	14	5	2		1			42
l	25	11	5				1		42
r	26	6	9						42
g	24	8	5				2		39
n	17	5	7	4					33
o	6	2	3	4	1	4	2		22
i	9	3		1	2	2			18
e	8	2	4	1			1		16
sh	9	4	2		1				16
ch	12	3							15
j	11	1		1					13
w	1	3	3	2		2			11
v	5			1					6
y	0		1	2					3
z	2								2
q	2								2
x	1								1
Total for parts of speech.	578	211	125	51	21	18	12	4	1020

Comparing the relative percentage of the different parts of speech with the observations by Tracy, and the proportion of the parts of speech with records from other sources and with an

estimated percentage of the frequency of words in a standard dictionary, I found that Diehl's vocabulary is very similar to other records if allowance is made for the differences in age. Diehl uses more adjectives and fewer pronouns than most children, and he is more free in his use of interjections than many children.

author- ity	age of child	nouns	verbs	adj.	adv.	pro.	interj.	conj.	prep.	Total
Diehl	4 yr.	55%	22%	14%	4%	2%	1.2%	.3%	1.5%	100%
Tracy	av. of many	60%	20%	9%	5%	2%	1.7%	.3%	2%	100%
Dictionary		60%	11%	22%	51%					100%
$1\frac{1}{2}\%$										
number of words.										
Diehl	4 yr.	578	211	125	51	21	18	12	4	1020
Salisbury	2 $\frac{1}{2}$	350	150	60	32	24	20	5	4	642
"	5 $\frac{1}{2}$	883	321	236	40	22	20	1	5	1528
Gale	g. boy	307	165	79	38	15	14	8	3	629
Kirkpatrick	2 $\frac{1}{2}$	369	189	83	42	27	21	8	14	751
Gale	3 $\frac{1}{2}$	108	217	49	94	186	27	5	19	700
	3	675	238	141	53	33	17	10	9	1176

It is interesting to note that the child has, in proportion to the size of his vocabulary, almost twice as great a percentage of "action-words" or verbs at his command, as are found in the ordinary vocabulary. Through this we can see one way in which we can best reach the child to teach him. That is through action.

A letter such as "k", which begins but few words in the child's vocabulary, should not be thought hard for him to say, or unusual. In reality "k" is third in rank if we consider the frequency of sounds, but many words pronounced with a "k" are spelled with a "c."

Following is a table of the relative frequency of initial sounds in Diehl's vocabulary, and in connection with it a comparison with observations by Tracy.

Kirkpatrick gives the order of frequency of sounds as follows: s, p, c, a, t, b, r, m, d, f, e, h, l, g, w, o, v, n, u.

One of the ways by which we largely judge a child's mental development is through his rapidity in acquiring and making a skillful use of his "mother-tongue." So I have watched Diehl's progress, made during the ten weeks, by marking every word which I was sure he learned or used then for the first time. Altogether he learned to use forty-five new words, or about 4 $\frac{1}{2}\%$  of his vocabulary were newly acquired.

Almost all the words he learned were the names of objects, and still he had no seeming difficulty with any of them. He

Diehl	s	11.4%	b	9.8%	k	8%	t	7.1%	p	6.8%	w	6.1%	h	5.3%	m	5.1%	a	4.8%	
Tracy	b	11%	s	10.3%	k	9%	p	8%	h	6.1%	d	6%	m	6%	t	6%	w	5.2%	
f	4.3%	d	4.1%	r	4%	g	3.9%	n	3.3%	o	2.1%	i	1.8%	e	1.5%	sh	1.5%	ch	1.4%
f	4%	g	3.2%	l	3.1%	r	3%	a	3%	i	2%	sh	2%	th	1.3%	e	1.2%	o	1.1%
j	1.2%	w	1%	v	.6%	y	.3%	z	.2%	q	.2%	x	.1%						
ch	1%	j	1%	y	1%	w	.8%	v	.5%	q	.2%	x	0						

never asked to have but one word explained. I had said that the town was decorated. Diehl asked me, "What decorated is?" I told him and then watched very closely to hear him say it. It was three days before I heard him use it, and then it was without any apparent effort.

I think he usually understood and used words in a correct way. One day his father was called into requisition to aid in fixing a stovepipe, and Diehl called to his sister, "Oh, Wawa, come, see papa do a stunt," and after the task was finished he cried, "Papa did do a stunt, papa did do a stunt." Surely he must have had a clear idea of the meaning of the word to use it in such a manner.

Again he was talking to a little boy that had come in to play with him, and as Diehl had the stronger will, he usually dictated what should be done. On this occasion I heard him say, "Now, John, I want you to understand." Another somewhat difficult word that I was surprised to hear him use correctly was "beware." To the best of my knowledge the only way he ever heard it used was in a song that his uncle was practicing.

He also used a somewhat unusual word one day, when, after something his mother had said, he queried, "That would sicken you would n't it?"

As it has been said, that a child's invention rather than his imitation should be the prime trait allying him with his kin in the past, I have also designated all words invented by him, whether modifications of known roots or entirely his own fabrication.

One of the most common changes he made was that of applying general grammatical rules to exceptional cases. He often formed plurals by adding es to the regular plurals, as for instance, "boatses" or "geeses." One day he asked how much ponies cost. On being told, "a whole lot of money," he asked, "As much as a hundred centses?" He also made an original form by saying he was "aworking." In like manner he formed the comparative of far as "farer," and made a new pronoun by adding self to you (youself). He said one morning, when asked how he was, that he felt "toothachey." But one of the

most unexpected things he ever said was when his father told him to do something and he said "I *will'n't*."

Another mistake he made was that of using a verb for a noun, saying "the bleed was coming."

Diehl has no difficulty in making up words to suit the occasion. At different times he called a lawn mower a "grass-cutter," a "cut-grass," a "cutter-grass" and a "lawn-mower."

He has difficulty with his consonants, they *will* get twisted for all he tries to avoid it. For quite a while he continually called a nightgown, a "gihtnown." In like manner as he had recently learned what it was to see people go barefooted, he would call them "barefeeted."

It was easy to see how even a child tries to associate anything new with former experiences. Diehl had been out in the garden with me and I had told him the names of several plants he wanted to know, but the one he seemed most taken with was the four-o-clock. Several days after, when we were out again, I asked him the name of that plant and he said "nine-o-clocks."

He always called pepper "black salt," associating it with salt and distinguishing it by calling it black. The only difference perceptible to him was that of color,

His name for molded jelly was "ning-nong." That was his former name for a bell and was given to the jelly because it was usually molded in the shape of a bell. He persisted in calling it by that name till now we all follow his example.

In like manner he always calls "nonpareils," "new-coffee-kinders," because one day when his mother had a box of them and he asked her what they were, she jokingly told him a new kind of coffee. He immediately caught up the suggestion and called them "new-coffee-kinders."

I recorded the exclamations Diehl used and the emotions that excited them. "Ah" usually denoted surprise and this was also shown in various degrees by "jiminy" and "gee winners." "Aw" expressed sorrow, "humh" generally disgust or disappointment, while "bumperary" showed glorious excitement. He also had a little song of "lal-la-lal" that he would often croon when playing contentedly. "Ow" denoted pleasant pain, usually self-inflicted, and "eee" meant pleased surprise. In all he used about thirty or 3% coined words, or transferred.

I can easily and earnestly say that my observation was one of the most fascinating things I ever did, for it was continually showing me new and unexpected phases. I can hardly tell all my observation has taught me, but the most significant facts can be easily grasped. First: The child grasps and adds to his vocabulary almost any new word and recalls it for use without

visible effort. Second : A child seems to grasp names of objects more readily than abstract words. Third : While at the same age children vary in the extent of their vocabulary, they usually, unless self-conscious, have enough words to express their ideas. This shows that their means of expression grows as their ideas increase, so it is worse than useless to try and get a child to use certain words, although they may be "cute," before he has the ideas which they aid him to express. Fourth : The child's life is largely depicted by his language. Diehl's vocabulary includes many verbs that express accurately his actions during the greater part of the day. They are such as run, walk, climb, play, shoot and do. He has an abundance of technical terms applying to engines, and he uses them correctly, for engines are his hobby. There are also many names of animals and plants with which he is acquainted. Fifth : The child I find is very easily influenced for good or bad by the language of his associates. Diehl was brought into contact with two boys and within a day he was calling from his rocking horse, "look out, he'll *buck* you." He also used "aint." One of the chief ways in which we can influence a child's dictation is, therefore, to permit him to hear only choice conversation, so that whatever he uses may be "English undefiled."

In my observation I was also given several hard things to think upon. What would you say or how would you feel it when a child of four had asked you to go to the river, and you had replied that it was going to rain, he should say, "A little while ago when you was n't out here, Jesus said he wasn't going to make it rain?"

Who can explain Diehl's idea when after he had said he could count up to the sky and down to the ground, and I had asked how much it was up there, he replied, "The sky is a hundred and the ground's eighty and two."

Truly I can say with Wordsworth :

"Oh dearest, dearest boy ! My heart  
For better lore would seldom yearn  
Could I but teach the hundredth part  
Of what from thee I learn."

#### THE VOCABULARY.

Italics indicate words learned during time he was being studied. Quotation marks [“ ”] indicate coined words.

A.		
about	afternoon	airbrake
about (prep.)	again	<i>airship</i>
ache	age	alarm clock
afraid	ago	alive
after	<i>ah</i>	Alice
	air	all

all (adv.)	bend	bunch
alone	Berwyn	bureau
along (prep.)	beat	buried
along (adv.)	bet	burn
already	better	bust
am	<i>beware</i>	butcher
"amember"	bicycle	<i>Butski</i>
an	big	butter
and	bigger	<i>butterfly</i>
Anna	Bill	button (noun)
another	billy-goat	button (verb)
any	birdie	buttoner
anybody	bit	buy
anything	bite (noun)	by
apart	bite (verb)	
apples	black	C.
apple-sauce	"black-salt"	cab
are	"bleed" (noun)	can (verb)
arm	bleed (verb)	can (noun)
around	blind (noun)	candy
as	blind (adj.)	can't
as—as	block	<i>cantaloupe</i>
ask	<i>Bloomer</i>	cap
at	blouse	carpet
aunt	blowing	care
automobile	blue	carry
"aw"	bluebell	Casey
away	board	castoria
awful	boat	catch
"aworking"	"boatses"	"caterpill"
	bologna	caught
B.	bones	<i>cedar</i>
baby	book	cellar
back (noun)	<i>borax</i>	cent
back (verb)	born	chamber
backwards	borth	charge
bad	bottle	Charley
bake	box	<i>cherries</i>
baker	boy	<i>chestnuts</i>
balloon	brake	chewing
banana	branch	chewing-gum
bank	<i>brandnew</i>	chickens
barber	bread	chimney
"bare-feeted"	break	chin
barn	Brennen	"choo-choo"
bath	brick	chop (noun)
be	broom	chop (verb)
beans	brown	chow-chow
bean	Brown	Christmas
bear	<i>Brummel</i>	church
Bechtel	<i>Bryn Mawr</i>	city
bed	buck	<i>Clayton</i>
beer	bucketful	clean (verb)
beerwagon	bulldog	clean-up
behave	bump	climb
bell	<i>bunny</i>	closet
belong	"bumperay"	<i>clove</i>
belt	bun	clover

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club	did n't	F.
coal	die	face
coal-bucket	died	fall
coal-car	Diehl	false-face
coffee-grinder	different	fan
"coffee-kinders"	dig	"farer"
cold (noun)	"dingus"	feather
cold (adj.)	dinner	feel
"comb-hair"	dirty	fence
(for hair-comb)	dish-up	fell
come	do	field
comfort	doggy	find
coming	doing	fine
company	Dolan	finger
cool	doll	finger-mail
coop	dollar	fire
copy	dome	fire-cracker
Corinne	done	fish
cork	donkey	fishing-line
corn	don't	five
corner	door	five-cent-piece
couch	down (prep.)	five-cent-store
cough	down (adv.)	flag
could	Downington	Florence
could n't	downstairs	flower-pot
count	dozen	flowers
couple	draw	flyer
covers	dress	foot
cow	drink	for
cracker	drive	forgot
crate	driver	fork
crawls	dropped	found
crooked	dropping	four
croquet	duck	four-o'clocks
cross	dump	fourth
crown		Frank
crows		Friday
crust	ear	fried
cry	Easter	fritters
crying	easy	from
cup	eat	front
cupboard	"eee!"	full
cupful	egg	funny
curl	eight	
cut	eighty	G.
"cut-grass"	eighteen	garden
"cutter-grass"	either	Gardner
curves	Eleanor	"gee-winniger"
"cwin"	eleven	"gee-wisz"
	else	"geesas"
D.	Emma	George
Dandy	empty (verb.)	get
dark	engine	girl
darn	enough	"gighthown"
Dave	Eva	"git-ap"
day	everything	give
decorated	exercise	glad
deep	eye	glass

glory	his	K.
God	hit	keep
going	hitting	kettle
good	hoe	key
good-night	hold	kick
got	hole	kid
grand	home	kind
grandma	honest	kissing-bug
grandpa	honeysuckle	kitchen
grape	hook (verb.)	kitty
grass	hop-toad	knee
grass-cutter	horn	knife
gravy	horse	knit
great	"horsie"	knock
green	hose	knotted
Green Tree	hot	know
grew	house	L.
grind	how	lace
ground	"humh"	lady
Groff	hundred	lady-slipper
guess	hungry	"lalla-lal"
guinea	hurry	lamp
gun	hurt	lard
Gyger		last

H.	I.	J.
had	I	
hair	ice	
half	ice-cooler	
hammer	ice-cream	
hammock	ice-man	
hand	ice-water	
handle	if	
hanging	in	
hard	ink	
Harrisburg	inside	
Harry	into	
hat	iron (n)	
hatchet	iron (v)	
hall	is	
have	"ispy"	
he	it	
head	itches	
headache		
headlight		
Heaven	Jake	
heavy	jelly	
heel	Jesus	
Helen	jiffy	
hello	"jiminy"	
her	Jimmy	
here	John	
hey!	Johnson	
hide	Josephine	
high	judge	
highest	July	
high-school	jump	
him	just	

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luncheon	normal school	phospho
Lynn	north pole	piano
M.	nose	pick
Maggie	not	pick-a-back
mail	nothing	picking
makes	O.	picnic
mark	of	picture
market-basket	off	piece
married	oh!	pig
Martha	oil	pillow
Mary	oil-can	pilot
matter	old	pinch
Matthew	Omega	pink (n)
matting	omelet	pink (adj.)
meat-grinder	on	place
mentholatum	ounce	plainer
merry-go-round	one	plate
might	only	play
Mildred	open (v)	playing
milkman	other	"pointy"
milkwagon	ought	policeman
"Mimmie"	our	poison
Miss	out	poor
Mr.	outside	pop-corn
mixed	oven	porch
mockingbird	over	postal card
moon	Overbrook	posy
Moran	"ow"	pot
morning-glory	P.	<i>potato-bug</i>
mouse	pain	potatoes
mouth-organ	paint (v)	pounds
mulberry-bush	paint-brush	powder (v)
must	paling	prayers
N.	pants	preach
nail (v)	Paoli	present
nail (n)	papa	pretty
nanny-goat	paper	prickly-heat
nap	park	pulls
neck	parlor	pumpkin
necktie	passed	punch
need	passenger	punch-bag
neither	peanut	punk
never	pears	pussy
new	peas	put
next	"peepies"	Q.
nice	pen	quart
nicer	pen-knife	quarter
nickel	pencil	R.
nigger	penny	radish
night	people	rag
nine	pepper	rain
"nine-o-clocks"	peppermint	rain-spout
ninety	petting	rake
ninety nine	petticoat	raspberries
"ning-nong"	phenol	raw
no	Philadelphia	Raymond

ready	see	spigots	
real	send	splinter	
red	seven	s(up)pose	
refrigerator	shady	spotty	
reindeer	shall	square	
rest	shell	stamp	
rice	she	standing	
ride	sheep	star	
right	Sheridan	start	
ring (n)	shiny	station	
ring (v)	shirt	stay	
rinses	shoes	staying	
rinsing	shoe-string	steam-shovel	
ripe	shoot	Stella	
river	shovel	step	
Rob	show	stick	
rock (v)	shun	sticky	
rocker	shut	sting	
rocks	shutter	stingy	
roll	sick	stink	
roller-skates	sicken	stockings	
roof	side-board	stomach	
room	sides	stone	
rooster	sister	stop	
rope	six	store	
Rose	sixteen	storeroom	
roses	skate	story	
rotten	"skeeter"	story-teller	
round	skin	straight	
rubbed	skirt	strawberry	
run	sky	straws	
running	slam	street-car	
rusty	sleep	string	
S.			
said	sleepy	strong	
salt-cellar	slide	stuff	
Samuel	slippers	stunt	
sand	smack	sugar	
sandwich	smell	sugar-bag	
Santa Claus	smoke	suit-case	
sassafras	smoke-pipe	summer	
saw (n)	smoke-stack	sun	
sawing-match	snap	Sunday School	
say	snoot	supper	
school	snout	sweet	
schoolhouse	snowing	sweetheart	
Schofield	so	swing (v.)	
scissors	soak	swing (n.)	
scratch	soap	swinging	
screen	soft	switch	
screw	some	swim	
scribbled	somebody	T.	
scrub	somehow	tabby	
scrubbed	something	table	
"scrunt"	sore	tablecloth	
Schott	sound	take	
second (adj.)	soup-dish-ful	talking	
	sour	tan	
	spider		

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target	train	we
taste	tramped	wear
tea	tree	weed
teacher	trout	weight
tea-party	try	well
teeth	tub	went
tell	turkey	West Chester
"teeny"	turtle	what
than	twin	wheels
thank	two	when
that		where
the		while
their	unbutton	whistle
them	under	white
then	understand	who
there	up	whoa!
these	upsidedown	whole
they	upstairs	why
thin	us	will
think	used	"will n't"
thirty-two		wind (v.)
this		window
three	valley	windowmill
throat	vase	window-sill
throw	velvet	wish
throwing	Vernon	with
thumb	very	won't
thunderstorm	vinegar	wood
tickle		work
tie		worm
tight	wagon	worn-out
tightened	wait	would
time	wakened up	wouldn't
tin-cup	wall	wrap
tiny	Wallace	wreck
tip	walk (n.)	wreck-train
to	Walter	write
toe	Walton	wringer
tired	want	wrote
together	wash	wye
Tom	washer	
Tommy	wash-line	yellow
to-morrow	wash-rope	yes
too	was n't	yet
took	watch (v.)	you
tooth-ache	watch (n.)	"yourself"
"toothachey"	water (n.)	youth
tooth-ache-wax	water (v.)	
top	watermelon	
touch	waterspout	Z.
tower	waved	zest
town	way	zinc-bench
track		

## THE DEVELOPMENT OF A DRAMATIC ELEMENT IN EDUCATION

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By ANNE THROOP CRAIG

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As a case in point of the dramatic concept, that is, of the way a child grasps the salient features of what he sees or is told, here is the Jeanne d'Arc story as related by my little boy at the age of two and a half. I had told it to him and showed him illustrations for it, and when I asked him to tell it to me again, this is what he said:

"She was a lady that took care of lambs, and she heard some people in the air talking. They told her to put on iron clothes" (*i. e.*, armor) "and go and shoot in the wars. So she went and shoted in the wars."

Is there not the backbone of each of three acts in that small story? It is very amusing,—but it is an excellent pointer for a teacher.

I know a teacher who could keep a roomful of children happy for hours playing with nothing. They would get a house ready, prepare a whole dinner, and sit merrily down to eat it,—all out of thin air. There are a lot of games in which everything is acted imaginatively. Imagination and activity—the handmaids of the child's development—but the teacher, too, must have the one and be alert with the other. The splendid energy and fancy of the child, suppressed, turn him into the restless little nuisance, the tease that he is in homes and schoolrooms where his powers meet no proper understanding and are not employed in directions to give them their natural scope. Then the child is punished, and how often it is the elders who should be! And how happily the child's nature expands and his capacities blossom at that magic tact of the mother or teacher who *knows*,—who can feel at the bottom of her heart, the same life that perpetually bubbles from the child's.

Let us see this imaginative and active—or, dramatic—method as applied in different studies. It has been so applied sporadically. More can be done with it. It can be specialized, too.

As it is now in the schools, between hours the pupils are given occasional short rests, in which they go through calisthenic exercises. Calisthenics are better than no exercise, but are never more than artificial. They counteract faults no nor-

mally developed child would have. No normally developed and normally living child would need calisthenics. Any natural activity the child's fancy and impulse suggests is better. "Recess" gives them this freedom,—and if complete relaxation too often is disorganizing, and it prove better to adopt a method, in any additional incidental intervals, of limb stretching, still imagination is not incompatible with orderly exercise, and since it is always awake in children, how stupid to reckon without it! Let them act a little play. Let them make it up on the spur of the moment. There is no artificial gymnastic equal to acting; because it is complete, has no elements left out, but holds the mirror up to the circuit of reality, from natural impulse to performance.

To get into children's ways is a wholesome knack. No fuss is essential. Fancy goes far. Suppose you try a little play in a short recreation period. If it is more amusing to "dress up," let them improvise in a moment, out of their coats and hats and materials at hand, all they want, as they do in their play-time by themselves. Jeanne d'Arc can wear a pinafore and a Tam o' Shanter, adjusted a bit differently and plated and clamped with fancy, and be rigged to entire satisfaction. Let them act out—say some especially interesting history lesson they have had,—some story of mythology or the like, or something they have been reading in their French or German. If you by chance for some of your school hour readings have used Dr. Church's excellent and beautiful translations of the Iliad and the Odyssey, you will find it will not need much urging to have them play at being soldiers creeping from the wooden horse at night,—at being Achilles, Agamemnon and the rest. You will see whether the history lessons, the mythology and all are remembered or not. If you can manage to have them try to act the foreign language stories in the language itself, it will be a great help; but in this attempt don't be too strict; correct here and there, but remember it is to seem amusement, or the spirit of it will die. Let it go on—even faultily, but go on with interest,—and the faults will grow gradually less. Children learn, we don't realize how much, but we note one day that they have after all learned to talk wonderfully, to shift their phrases intelligently, to use idioms and synonyms and autonyms correctly, without by any means our teaching them every word.

For these language plays, for one instance, suggest that the children pretend themselves in Paris—Berlin—Rome—and attempting to speak the native tongue,—so while they learn from their blunders they may still be amused by them. Such plays would be better than all the little monotonous "rondes" that were ever invented, and which amuse only very little children.

Some teachers of foreign languages do often take perhaps two of the recitation hours a week and let their pupils improvise charades on the same principle as the plan cited in this paper. They are better than conversation for children,—who are hardly conversationalists in their own language,—and the dramatic game, for such we may call it, indeed leads to conversational ability without the self-conscious effort.

Do not think, in any of these attempts, you will be successful, if you allow it to seem a set affair—a duty—to perform the Landing of Columbus, the experiences of Jeanne d'Arc, and the rest. You would at once have your little pupils as stiff as cornstalks, the arms and the feet all at odds, and—most serious of all—the spirit for it all, gone.

Say to them rather, "Wouldn't it be fun to play going to church with guns, like the Colonists long ago, and attacked by Indians—or the Vikings sailing so long over the ocean and finding land? Which would you rather? Come—let us play in this time we have!" *Want* to do it, yourself; help them to make-believe costumes; invent anything you please; bring into the play whatever you want them to remember;—say "long ago," "very," and "very, very long ago" *fordates*. Use expressions of time relatively, "before" and "after" and "about the same time," and so forth, *not dates*, until children are old enough to comprehend at least somewhat the perspective of centuries,—even then, never insist upon exact dates at first. The important thing to fix as regards time is the *relativity* of periods,—and if we have taught historic facts in their succession, intelligently enough for the pupil to grasp unconsciously the natural, inevitable development of events from one phase to another of the world's growth, the relativity of periods will take care of itself in his mind, and will without much difficulty later resolve itself into those exact dates which it is found useful to remember. We are inclined in teaching to fuss and worry over details that would take care of themselves. This point I have already dwelt upon as that in which the very virtue of the dramatic play is vested: that it falls in with the child's natural concept of salient features, which details in due time elaborate. We have talked about the elemental first emotions of the human being. From first feeling,—moving,—breathing,—his first perceptions are through the agency of these powers; his perceptions through hearing and seeing are but rudimentarily awake. A child will not go aside to examine a dull colored grub when a gay butterfly flutters beyond, nor listen to quiet talking when a hand—organ is playing. Large things, bright things, active things,—these are the healthy child's natural concepts,—what it instinctively stores for a reserve fund of primarily vigorous impressions. They

give healthy balance to the child's nature, and balance and definition to his later developed analytical powers.

So then what you can teach children by engaging their activities, you will truly teach them. Perhaps you will be surprised to find how quickly the child's mind proves itself first of all dramatic in its conceptions, that is, how it naturally chooses, as I have cited, the salient features of any subject or episode, without prompting. The theory of children's large concepts must be patent to every intelligent mother. This theory follows the simple fact that conspicuous things catch the attention first, that the child, seeing those, is at first too much interested to be diverted by details, that we must trust—because we see it always proved—that comprehension of detail will come of itself later, so simple a theorem that one wonders it was so long in being applied to general education; that little children so long, to their detriment, were held to nerve-trying tasks.

If you try having a child act a thing, especially in his own words, with his own improvisation (when of course it is easy to correct materially misleading errors in the enactments), will he not take the story into his nerves and muscles? There could be no better way of making him remember it. From being a more or less dead, or at least vague and distant thing, the story or lesson he has *played* will come to enliven him, to become part of his energies, and therefore to vitalize his imagination, his memory, his powers of association. It will help him to be creative, to be enterprising. It will surely prove a wonderful game. But first and always be simple with the children, sympathetically interested, and one of them when you make your experiments. If you correct them, correct them not as an autocrat, but as one who might make mistakes as well as they. When you do absurd things in this dramatic game, laugh too, and let them laugh at you in the same way that they will undoubtedly laugh at themselves and each other. Be sure that nobility of intelligence is in itself dignity and needs no words to enforce it, nor any assumed manner of aloofness, nor anything but simplicity and sympathy. Those who have a true sympathy for their pupils, whose intelligence the pupils feel sure of, and whose unaffected manners win their confidence, need never fear intentional rudeness from them. And this principle applies to everything we do in dealing with children. Especially in dealing with aesthetics in the development of temperamental power, these are all-important principles.

I have spoken of the partial use of the "dramatic" method with other studies. We are all familiar with it. It is the "play" method, the actively illustrative method, for the inspiration to which we are indebted to Fröbel and his compeers.

It has better results than any other. But that has already gained our respectful attention. I want to show the use of specializing dramatic study by itself as a part of preparatory culture. With its further study as a professional preparation this paper will not deal.

We pass the years when the plays in the incidental "recesses" may be given over to the improvisation of history, or language stories and the like in the most childish form, as we have suggested their use,—and go on to say that now, as the boys and girls grow, some regular day, at set intervals, once a month—or fortnight—be given to the presentation of some juvenile play. Let it always have some definite point, and good construction; also, the shorter the better. One act is best, at all events sufficient when made a regular part of a school curriculum, to attain the good results sought,—and moreover will probably take all the time that could be devoted to any one study, however excellent, without encroaching on other departments of training also important, since to produce this simple play, it must have a regular period of rehearsal daily. This period, furthermore, must not be too long, too arduous, nor over-criticised. The playing will undoubtedly be awkward, but if it is not over-criticised it will keep its freshness, and its awkwardness will largely smooth itself down. Don't expect smoothness, at once, or twice, or for many times. Things work out themselves, even though it takes time. But carping and impatience for perfection in too many details at once only irritates and perplexes, and so delays the more—in this as in every study and every direction of development, perhaps more in this because of its being the peculiarly personal art.

The results of anything done moderately and regularly are better grounded and more lasting than of those done spasmodically, even though the spasmodic ones be attempted with painstaking elaboration. Besides, spasmodic and elaborate attempts in all things—and particularly in this—tire and excite, and indeed cannot be done well, since to do elaborate things well requires a long, systematic and regular preliminary training in their simple technical elements, and the slow, moderate process alone gives this. Genius is occasionally said to work by spasms; but we are to suppose that it is the privilege of a Genius to be born with extraordinarily acute instincts upon which to build his art. In the same way an actor of long experience can leave off his work for periods and return to it without loss. He has come to possess his elementary knowledge. It has become part of his nerves and fibres. If he keeps up certain parts of his practice he can always tell himself just what he needs and how to apply it, from long analysis and practical application of methods. For his specific efforts

when he makes them he is able to prepare himself quickly; but those without training, study or experience cannot, of course, do this. That annual school plays are occasionally performed amusingly—not ridiculously—and that the young actors are sometimes comparatively natural and easy is due usually to the lack of self-consciousness of healthy and well brought up children, or sometimes to the natural childish aptitude for acting accidentally developed from fortunate lack of repression.

Now the one point of all this is that if children give these plays annually, which are supposed to be useful as showing to parents their proficiency in some study—elocution perhaps, but usually some foreign language—the truth is, they do *not* prove any special proficiency, since it is a very secondary achievement, and no indication of knowledge of a language to have learned parrot-like the phrases of some one else. To be sure they may interest some children and incite them to learn further, and the phrases and vocabulary they learn by heart in their lines they may remember; but these advantages are small and do not balance the æsthetic harm done by forcing comparatively elaborate labors upon perfectly crude and unprepared abilities, to say nothing of the nervous injury incurred.

As the school years go on with such a beginning as I have outlined, the development of the dramatic department would not be difficult to plan and systematize. It need not, should not, usurp the time of other studies any more in the later stages than in its first. As it is now, by the unbalance of its introduction without system, it usurps and harmfully distracts or excites, or else it is entirely neglected.

Little by little as the abilities grow, the scope of the study should be broadened. The plays selected may reach nearer the classical and intellectual lines. The pupils will be full of interest and enthusiasm. Could anything carry the spirit of the classics more intimately to the students till they are deeply grasped and held? You will find, if you have done at all what I suggest, that the regular early encouragement of the natural dramatic instinct will do away with much of the need of what I have called "artificial gymnastics," with much of the need of later artificial voice training. It will do away with self-consciousness in most children because by making the instinctive interest in the things that they themselves act and read, predominate, they will forget themselves in this natural interest, and will never have learned the vanity of feeling themselves on exhibition, a vanity not primarily natural or healthful, but acquired from pernicious influences and foolish admiration of precocity.

So at last when they come to give their classic plays for intelligent audiences, in their academic years—as they are accustomed to do now, only all unprepared—what they do then

will be likely to be presented with a feeling for character as great as their years' experience of life will permit; their performance will at least be simple and free from self-consciousness, so also from much awkwardness. They will have developed a greater instinctive intelligence than you would have imagined with regard to characterization, and general artistic effect, and their performance will be pleasing and well worth seeing from many points of view; even though their youth would naturally debar them from the laurels of the actor whose entire life has been given to his art, and whose age and experience permit his deeper analysis of characters.

To be able to perform some charming and classic production with grace, with enthusiasm, with as much sympathy as a symmetrically developed young mind can have for perhaps complex characters, would mean a very well rounded education and could come only from an education in the best sense of the word; a development without warping and short-sighted repression. It would mean strengthening of all the natural abilities. Whatever of literature or history or anything else—this study should have been the vehicle for expressing, or whatever it might have made use of as material for the development of its own power of expression, would be stamped on the minds of its students in clear structural outline, with true values of detail.

The elementary structure of endeavor is built upon Impression (or perception), Impulse and Action. Elaborate each as higher development may, normally the proportions remain constant. Drama reflects this, is built upon like proportions. An art speaking through the personality, the conception of its proportions becomes a personal possession. Are not these proportions of actual energy, which drama in art reflects,—those upon which are built Logic, Number, Philosophy, Music, Science, and all the useful and fine arts?

And with all this sense of structure made a more definite personal possession through the art that must express itself by means of the very personality, and more than all others leave its stamp unsightly on every sense and fibre, what young person shall go out to work in the world and not be the better able to weigh and balance with a true sense of proportion the relations of life and work? Should not every part of every work or art he follows the more readily fall into its place? He should have learned how to hold to outlines and how to give detail its intermediate values. It might not prove all this, but it has this tendency. For does not true art mean mastery of technique for the attainment of unhampered power to express inspiration? And the gradual transmutation of this mastery of more and more intricate subtleties of technique into the personal instincts of the race, is it not the very process of civilization itself?

## THE NEEDS AND METHODS OF EDUCATING YOUNG PEOPLE IN THE HYGIENE OF SEX<sup>1</sup>

By G. STANLEY HALL

The 1,500,000,000 people, more or less, alive on the earth to-day are but a mere handful compared with the countless generations who are to proceed from their loins in the future. All posterity slumbers now in our bodies, as we did in our ancestors. They demand of us the supreme right and blessing of being well born, and they will have only curses for us if they awaken into life handicapped by our errors. Their interests should dominate all our lives, for that is living for the children, for our duty of all duties is to transmit the sacred torch of life undimmed, and if possible a little brightened, to our children's children in *secula seculorum*. This is the chief end of man and of woman. The welfare of all this cloud of witnesses is committed to our honor and virtue. The basis of the new biological ethics of to-day and of the future is that everything is right that makes for the welfare of the yet unborn and all is wrong that injures them, and to do so is the unpardonable sin—the only one nature knows. Just as the soma and all the mortal cells and organs of the body and all their activities throughout our individual lives are only to serve the deathless germ plasm, so every human institution, home, school, state, church and all the rest exist primarily in order to bring children and youth on and up to their highest possible maturity of body and soul and the value not only of all institutions, but of art, science, literature, culture and civilization itself are ultimately measured and graded by how much they contribute to this supreme end. Our religion began in the promise to and covenant with, Abraham that if he lived aright his seed should be as the stars of heaven for multitude, and the essence of Christianity was the effort to fix the highest of all human sentiments upon the loftiest of all objects and thus to bring salvation by ennobling love. Hence, both Testaments are in a sense a continued love story, the romance of humanity with God. On this view, if we say that God himself when biologically interpreted is simply posterity personified, he would

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<sup>1</sup>Address at Meeting of American Society of Sanitary and Moral Prophylaxis, New York City, Feb. 13, 1908.

again be worthy of the supreme reverence, devotion and service of those who are now prone to neglect and forget him.

Now the aberrant fallen aspect of man, wherein he differs from all animals, is rooted in the excessive development of the sex functions which is no longer limited to breeding seasons nor to the desire of the female, nor exercised for procreation only, but has become an end in itself. Man is prone to mortgage posterity by consuming in his own self-gratification energies that belong to the future, or in Herbert Spencér's phrase, to over-magnify individuation at the cost of genetic powers, for there is in all a critical point beyond which development of the ego robs the future. Our life is like a richly laden ship of which we are simply the steersmen with the sole duty of navigating our bark from the last safely on to the next generation, but over-self-indulgence is breaking into the hold and looting the cargo to the loss of the consignees, our children. Like fire, sex is a good servant but a tyrannous master, and how few are they to-day entirely unscathed either by its conflagrations or its smoldering inner calentures. Prostitution, abortion, preventives, precocity, sex diseases, divorces, defective parenthood, race suicide, inability to nurse, declining birthrate in every country in Western and Central Europe and still more so in this country for native born population—all these are only a few of the more salient outcrops of the one great fact of growing abnormality of the sex function which some anthropologists now think marks the same stage of race senescence as began the decline and fall of the great nations of old.

However this may be, men have learned very much about sex within the last two decades, so that we can now begin at least to take a broad comparative view of it from its origin up to the highest animals, including man. The studies of all its grossest perversities, repulsive as they are, have shed very precious light, while just now such studies as those of Freud, Jung, Bleuler, Riklin and others in Germany, and Janet and his group in France, have shown its profound and often all-conditioning psychic ramifications and immensely broadened the field of hysteria, essentially rejustifying its etymology, though finding its symptoms often well developed in men. We have learned, too, how sex has permeated all religions, the chief problem of which some are now boldly saying always has been and must be to regulate and explain sex in its wider relationships, and thus including not merely phallic types of worship which once covered the world, but even the religion of totemic clans by their rules of exogamy. From all these sources new data are rather suddenly at hand for a far deeper and broader knowledge of sex than ever before, and this seems now certain to rescue the subject from the sex intoxicated

mystics and from the tendency of even sane men to become dogmatic, extravagant, if not absurd upon this subject as upon no other.

The old prudery and false reticence, too, are giving way all along the line. Not only are novels, drama and often works of art entering this field more freely, whether for good or ill, but staid professors like Ehrenfels of Prague, are developing a radically new sex ethics, while Galton's eugenic schemes involve the endowment of wedlock for the fit if found to be so when examined by a medical commission. The vigorous group of young professors who support the German archive for racial and social biology are urging legislation to unsex or otherwise eliminate reproduction by the unfit but extremely fecund Jukes, Sebalds, Buddenbrucks and other degenerate families, to compel marriage of all fit by progressive fines designed to make the way of the capable bachelors hard and their selfishness opprobrious. Some and half a dozen others backed by a society are working out tirelessly very elaborate pedigrees of royal and other families to draw therefrom lessons for practical human stirpiculture. European countries, conscious of their dwindling birthrate and the increasing rate of infant mortality during the first year, as well as of the tide of emigration to both Americas, are now intensely alive to the necessity of having more men for their armies, their industries and their colonies, and that in the competition between different countries natural supremacy will ultimately go to that country that is most fecund—hence they are farther on than we in the study of these larger problems of sex, and many startling schemes designed to produce more and better men and women are already being discussed.

In the Mannheim Conference on sex pedagogy in 1905, the proceedings of which have only just appeared in a stately volume, not one voice dissented from the proposition that sex should be taught in the later years of secondary boys' schools, and the only grave differences of opinion were as to what should be taught, how and by whom, and whether certain instruction should not begin some years earlier and as to whether and how girls should be taught. In Finland, Switzerland and Hungary such instruction has been for some years authorized by law and it has also been given in a dozen or more of the largest German cities and with best results, although the Prussian cultus minister has not formally sanctioned it. Of course parents should do it, but very few will and can, although many courses in Germany are now offered to educate them in that duty. To believe or to urge, as is often done, that children now and here come up to the age of twelve or even ten to-day innocent of all sex knowledge is simply ignorance. City life itself makes

knowledge more precocious and school associations suddenly increase it so that our censuses indicate that the vast majority of children of eight or ten already have quite a body of misinformation that is most eagerly sought, that is gross in form and deplorably misleading in content. Wherever special studies have been made they indicate, too, that nearly every boy before the end of the teens has at least experimented with himself, knows a good stock of indecent words and stories and a large percentage of them, despite the noble work of the purity agencies, have soiled their minds with literature that it is a crime to print or circulate, have dangerously false views about the dangers and gravity of disease, the need of indulgence, while many are more or less panicky about their spontaneous nocturnal experiences and a percentage variously estimated from three to twelve have written to quacks whose flaunting scare advertisements many newspapers still print; and all this while mothers and lady teachers are living on complacently in their fools' paradise confident that all is well with their callow adolescent darlings, so secret, subterranean and spun-over with the web of lies and deceipts is sexual life.

Our life fortunately begins with a sexually neuter period during which no sex consciousness exists, a stage typically illustrated by the four-year-old boy's question how could one tell when children were in bathing with their clothes off which were boys and which were girls? Of course the age of primeval innocence should be prolonged by every possible means, and the only sex hygiene is cleanliness to avoid irritation, loose and not too warm clothing, wholesome food, open bowels, regularity, cool bedding, active life, and objective interests. Knowledge on this subject should be given only as interest arises, and to force it prematurely at this or any other stage is a kind of psychic rape, and makes directly for precocity, so that eager curiosity should always be assured before information is given. Self handling at this age is exceptional and needs medical care.

The second specific interest which seems usually to nearly coincide with school age, is where babies come from, when the myth of the stork, doctor, or the milkman is outgrown. This is the stage Helen Keller was in when her teacher exclaimed that she was tired of hearing of new little cows, cats, dogs, babies, and when she asked the meaning of the word born, and also of a group of school girls of eight to eleven who wrote and signed a round robin request to the teacher to tell them where men and women come from. In most cases it is enough at first to explain that the young grow in the mother's body and in due time are brought forth, and that this is true of animals as well as men.

Of course the mother should give this information simply, briefly, and as something rather mysterious and sacred, though but few mothers do so, so that the teacher must qualify for this task. All that is necessary can be told briefly, and it ought to be personal. Of course, pedagogically, it should come incidentally in the nature study course, but so important is it that of itself it is a sufficient motive to introduce the subject of rudimentary zoölogy in the middle grammar grades. The needs of the sexes, of course, differ here, and it would be advantageous to segregate them for this instruction. The ideal is a woman teacher for girls and a man for boys. This would appeal far more to girls than to boys before puberty. I cannot yet find any course or text which seems to me quite ideal, although I have collected many, and Germany has at least one, and perhaps three, that are in many respects admirable.

The paternal function excites interest much later; and how to teach it many think a pedagogic crux. If the child really did repeat the history of the race this would come far later, but with our precocious sexual éclaircissement which presents this in the very worst light and long before its time, something has to be done on the back fire or immunization principle. The fertilization of plants and flowers by insects and the wind is a familiar prelude, and this knowledge when sex begins to bourgeon in the soul will blossom out with new significance. So fertilization of lower animals, of those that lay eggs, of the relations between sperm cell and ova on up the scale can be brought in an enlightening way without too objective diagrams of human organs or processes as some advocate, for the child's mind is very alert to see and apply all needed lessons from lower forms, so close are its relations to, and sympathies with, animal life. The normal should, of course, always precede the abnormal, and animal courtship, brooding, etc., are normal. This instruction need not be prolonged or much methodized-and if rightly taught does not need to be examined on. Here too much illustration, amplification and detail hinders understanding, while sex segregation is still more desirable, though where it is not practical this should not prevent teaching the subject, even to mixed classes just before puberty.

With the dawn of adolescence, when the sexes naturally draw more or less apart in the home, games, and socially, and when in nearly all savage races boys and girls are given instruction apart, often lasting for weeks, and with very impressive ceremonial initiation into manhood (for instruction in sex and its irradiation constitutes most of the material of savage education) the chief need of girls is for hygienic instruction concerning their monthly regimen at an age when folly and ignorance are most dangerous. The needs of boys are now

several; first, to know the harmfulness of self-abuse, which is very grave, although it has been the fashion to exaggerate it. They must also be disabused of their morbid fears of being lost because of the spontaneous nocturnal experiences which quacks know so well how to prey upon. Third, they need some plain talk about the dangers of infection, both by black plague and by gonorrhea, and the enormous evils of the latter, which are only lately adequately understood. All this instruction should, to be authoritative, be given by a physician. Boys are not much impressed by goody talks about purity such as clergymen, teachers or principals, and the worst of all, ladies are likely to give, and such as are now quite the fashion in the great English schools Eaton, Harrow, Rugby, etc., where such preachers are known in school slang as "smut jaws." I believe boys of fourteen need to be told, too, of the marvellous nature of the germ plasm, the most complex and highest product of the great logos or spirit of life, and how the sexual glands in man best take care of their own functions and are no more prone to atrophy from disuse than are the lacrimal glands. They should be informed rather fully of the dangers and also the results of infection. After every general talk there should be a very carefully devised opportunity and encouragement for personal conferences that the sexual fears, that often become perfect obsessions be removed, that more instruction be given to individuals who need it, etc. The physical trainer should weigh, measure and test heart, lungs, muscles, always incidentally observing sex, and co-operate according to need with the medical instructor, unless he can give such instruction himself. Stripping periodically before an expert is as salutary to-day as it was in ancient Sparta, and from it many most wholesome influences can be evolved. So much I think the State now owes to every fourteen-year-old boy, and if we begin with those of eighteen, as we should do without delay, such instruction would be sure to gravitate downward to the very beginning of puberty, when its benefits were seen. In Germany, a few have advocated teaching sex perversions, even Sadism, Masochism, fetishism, pediastry, and even some pornologic details, and one text including these things has been prepared there. Curiously, in Germany, it is women teachers who advocate most unreserved teaching, but I believe all this is entirely wrong, unless, of course, individually where perverse tendencies are already indicated.

For the high school Cohen and Rohleider in Germany and various investigators in England and France think self-abuse among boys the rule and perfect chastity the rare exception, while Blaschko's careful statistics of German university students convince him that they show "a greater proportion of

sex infection than any other class in the community." In this country reliable and comprehensive statistics are wanting. Certain it is that sedentary student life with its too common exemption from hard work, mental or physical, more is the pity, sheltered as it is from the struggle for existence, predisposes to temptation. The very causes that make boys leave high school and that fill college with those who do not expect to make their living by what they learn there — football, athleticism, liberty — young barbarians at play have influence here. Collegiate instruction in this subject is surely imperative, and in this great stress should be laid upon the sense of honor, chivalry and respect to women; on the gross egotism and dishonor of seduction in ways so almost ideally set forth by the lectures to students of Professor Ziegler<sup>1</sup> of Strassburg and in France by Wagner. Students before college need to be told of the wide range and variation of organs, both in form, size and functional activity within the limits of normality, for physical examiners agree in reporting that many, if not most, young men pass through a stage of anxiety and sometimes of morbid fears lest they are hopelessly abnormal.

All girls before leaving the secondary schools should be told of the commonest wiles and arguments used for their betrayal and some think as to risks, dangers and degrees of permissible liberty. Girls' intuitions, however, are wiser and more reliable and they need less instruction upon most of these topics, save the last, than boys. The preponderance of opinion seems to be against either instructing girls in advance what to do if unfortunate, etc., or boys concerning the proper course if they become infected and is unanimous against information concerning precautions against either of these calamities.

To me it seems clear that all children should have some instruction in this subject suitable to their age before they satisfy the requirements of school attendance and that this should be given by qualified instructors of the same sex. Hence every normal school should train teachers in this field. The church, too, has a duty in this respect which it is happily just beginning to realize in a few places. Extension schoolhouse lectures should be offered to mothers and also to fathers, as they should in most young people's clubs and societies, Christian Endeavorers, Epworth Leagues, Young Men's Christian Association and the now very many other associations for the young, of whatever faith. Such instruction should not be prolonged or over-systematic, for the pedagogic method here needed is entirely unique. Every child ought to be in frank and confidential relation with some wise, older mentor, the parent of

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<sup>1</sup>Theobald Ziegler: *Der deutsche Student am ende des 19. Jahrhunderts*, 6th ed. Göschen, Leipzig, 1896.

course preferred, to whom it can and will freely turn during all the ten or more years before maturity. Of the two or three-score books designed for the young on these topics in my collection every one seems to me too large and diffuse and holds the mind too long upon the subject, while most were written by people with more zeal than knowledge and often with more knowledge than discretion.

But finally, medical knowledge, indispensable as it is, is not enough, but the prophylactic needed is vastly larger. Nature's method is to long-circuit and evolve ever more widely irradiating secondary sex qualities, plumes, wattles, antlers, organs of offense and defense, balzing and tumbling and all the varieties of love antics and the showing-off instinct that are involved in the function of sexual selection. So many, if not most, of the best qualities of the human body and mind are built upon the basis of sex, and from which evolve deportment, manners, dress, ornament, the spirit of personal loyalty and devotion, the antique idea of friendship, the sentiment of honor, and above all, the nobler and purer expressions of love, and even religion itself, so that it is plain that whatever strengthens these tends to sublimate, spiritualize and normalize sex. The ideals of body keeping, physical perfection and strength, agility, skill, beauty, the full development of shoulders, chest, arms, loins, legs, a ruddy cheek, clear eye, love of exercise, of cold water and cleanliness, of nature afield, of contest and competition involving victory and defeat, the legitimate ambition of being a splendid animal with a strong and flexible voice, defiance of wind and weather, a normal appetite and sane regular sleeping habits, hearty, free, open manners, a love of the Turner's ideal—"frisch, frei, fröhlich, fromm"—a laudable passion to excel, a love of rhythmical movements as exemplified in periods of history when dancing was most varied and vigorous and did most to cadence the soul to virtue and preform it for religion; those who know, feel, do these things are developing probably the most effective of all checks and come thus against every kind of sexual aberration. It is incalculably harder to develop these results than it is to give a few lectures on sex dangers, but it is as much more effective as it is harder. It is these things in which the sexually corrupt are crippled and here those who know too much of Venusberg cannot enter. If this is so, then every introduction of a motor element in place of the old sedentary modes of training makes for chastity.

So the intelligence of youth is normally keen, alert, curious, sprouting all over with eager spontaneous interests, grasping out for new facts, fond of trying its new found powers of reason by argumentation and dispute, ambitious for the summit like the hero of Longfellow's *Excelsior*, showing now amazing

spells of concentration, perseverance, though perhaps alternating with periods of distraction and unrest. So every intellectual interest is a sedative, or perhaps better, an alternative of the sensuous side of sex, while merely formal school topics, dull teaching, listless routine, zestless attention are almost of themselves temptations to passion which always presses for entrance into unoccupied minds and moments and wherever there are unused functions tends to sap them. The deeds and words of great men are never so inspiring, and teachers and courses that fail of this are co-respondents with the lusty blood of youth in the indictment of sexual errors now brought against students. Among the many reasons for the more practical and even occupational training of boys I count this moral one as one of the chief because the contact with life it brings rouses a sense of responsibility to both self and the community and makes the call of the future louder and all this has a sex value perhaps primary and at least secondary.

Again, puberty is the birthday of the feelings and emotions, and these are the older and most dominant parts of the soul that really rule all our lives and have very much to do in determining sanity and insanity. Young people need to glow, tingle and crepitate with sentiments, and the appetite for excitement and sensation is at its height in the teens and here is where the principle of vicariousness of Aristotelian catharsis comes in and give the teacher of higher sexology his chief opportunity and resource. Excitement, the young must and will have, for the feelings are now in their very life. If they cannot find it in the worthy, they are strongly predisposed to seek it in the grosser forms of pleasure. Hence, every glow of æsthetic appreciation for a great work of art, every thrill aroused by an act of sublime heroism, every pulse of religious aspiration weakens by just so much the potential energy of passion because it has found its kinetic equivalent in a higher form of expression. It is for this reason that some of our German collaborators on this theme have advocated a carefully selected course of love stories chosen so as to bring out the highest, most chivalric side of the tender passion at the age when it is most capable of idealization, and still more in that country and now lately here have seen the necessity of encouraging theatre going to plays palpitating with life, action and adventure that emotional tension may be discharged not merely harmlessly but in a way elevating in the middle teens. Even melodrama, gushy and tawdry though it may seem to adults, has been sometimes authorized. The statistical studies lately made of children's attendance upon and love of the theatre as well as of their passion for assuming rôles of many kinds in ever so fragmentary a way have come to us pedagogues of late almost as

the revelation of a new power in human nature, the educational utilization of which when we learn how to do the most and best with it, will be comparable to the harnessing of a new power of nature into the service of man.

To conclude, I am convinced that if religion were known to be only a myth and a superstition by cultured adults, it would have to be kept and its function modified for the young because of its prophylactic value for this function, even if it had no other. Its great themes are life, death, virtue, sin, duty and responsibility, love and service of God and man. These awaken old phylogenetic echoes in the youthful soul which bring it into salutary rapport with the past of the race in which, if evolution is true, the best has survived and the worst perished. Those who have been most truly religious have most sought purity and alliance with the power that works righteousness. The chief sin of the world is in the sphere of sex, and the youthful struggle with temptation here is the only field where the hackneyed expressions of being corrupt, polluted, lost, and then rejuvenated, of being in the hands of a power stronger than human will become literally true. Especially if the theme of the religion of the future be the relation of the individual to the race and to posterity, and if the world to-day is increasingly in need of a new dispensation of sexual theory and practice, we shall have to have a national, industrial, social, political as well as religious revival, such as the world has seen but once or possibly twice since the Renaissance. If this ever comes, it can only spring from a sense of demerit intensified almost to the point of moral despair and this folk psychology shows us can only arise from a conviction of impending racial decadence and sterility. This, I believe, we cannot expect because we have already begun to glimpse the magnitude and importance of this subject from so many sides and to work against downward tendencies so that what we must look forward to is a reform and progress that will come by methods of evolution and not those of revolution.

## THE UNIVERSITY IDEA<sup>1</sup>

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By G. STANLEY HALL

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Despite unusual pressure, I could not refuse the invitation of President James, long my friend and once my fellow student in Germany, to whom the cause of higher education in this country owes so much in so many ways, to journey hither and add my congratulations to those of so many others upon the significant new step your university takes to-day. This is indeed already a great institution in a great State, but the best thing about both is that they contain the promise and potency of a future far greater than the past or even the present. The State universities will go down to history as the best of all the institutions which the great States of the Mississippi Basin have evolved. They are the chief factor in determining the level of all the learned and of all the practical professions and more and more, as their influence is realized, they will become the very apple of the eye of legislatures and of all intelligent citizens as institutions for which no sacrifice is too great and nothing is too good. The private endowed institutions of the East, old and new alike, are just now fully alive to the inevitable but friendly rivalry and competition now on between their type of university and your own and in the steadily declining percentage of their students that come from this region and in the fact that their supply is more and more local, they realize your advantage in low or in no tuition, in exemption from taxation, in greater plasticity to present needs and in a more practical spirit and methods.

Personally, I would fain believe that nowhere in the step you now take of beginning to build a higher story upon your already imposing academic edifice will you receive a more cordial Godspeed than from the small institution I represent, which from the first and at great sacrifice of numbers and of material advantage, has stood quite alone in the country for graduate work only.

Can there be any doubt that this is our country's chief need? The echoes of Owen Wister's last month's heart to heart talk with his alma mater, Harvard, still ring in the hearts and

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<sup>1</sup> Address delivered at the opening of the Graduate Department of the University of Illinois, Feb. 4, 1908.

heads of us New Englanders. He urged, with what seemed to some, brutal frankness, that though the balance of trade in our favor last year was \$444,000,000, our balance of trade in the world's scholarship was zero, and he was able to name but three living American professors of first rank or of international fame who could draw those advanced students from other countries who were intelligent enough to find, and wise enough to travel far, if need be, to sit at the feet of the very highest authorities. As against his meagre list which most would enlarge and probably all would change, he presented a long array of savants of world-wide fame in Europe.

We have our ample share or even more of great inventors, like Morse, Edison, Bell and others who apply the results of science to useful arts, and this is a service which is more and more appreciated, but no candid, informed man can deny that we lack our proportion of the higher type of original investigators and discoverers, although there is not a popular audience in this country which would not applaud anybody's emphatic and categorical denial of this fact, and that is perhaps the worst of it.

But without endorsing any one's specific criticism, still less any list of men of superlative merit, concerning which there are as many opinions as there are interested judges, must we not all now candidly and squarely face the hardest problem of the higher pedagogy: viz., how this country can make larger contributions to the sum of human knowledge or do more for the progress of science,—a problem so vast that it seems quite presumptuous for any individual to attempt to even state, far less, to solve it.

The mere diffusion of knowledge is so vital in a republic that it must always absorb much of the energy of most educators, and our progress in this horizontal expansion has been a matter of just national pride. In no land or language are there so many pupils in lower or higher grades as in our own. In numbers, buildings and money spent we lead the world. Our college presidents are and must be attorneys, for their institutions are always working up briefs for their clients with an eye to dollars and students in about everything they do or say and we all know the pathetic state of mind and the ultimate fate of the college or university president who cannot show an annual increase of students and endowment. Some of our great institutions are vastly overgrown. This is realized in Germany where the problem of decentralization is now under discussion. Vast classes are here taught in platoons with an intricate mechanism of tests and examinations which absorb so much professorial time and energy in coaxing or coercing the lowest quarter of each class through with a decent modicum

of knowledge. A growing number of institutions are so thronged that the individuality of the student is lost in the mass and that classmates graduate without knowing each other, while the methods of testing, marking, cramming and too often of teaching are those of the high school. In one institution, 36 of the best graduate students are drafted into the drudgery of reading examination papers and doing famulus work in the laboratories under the dignified name of fellows, with a pittance of \$500 a year, most of whom, flattered at first and with the vain hope of academic advancement, drop out limp and discouraged as the insight comes only too late how much better their golden years of opportunity might have been spent. These intellectually élite and best young men, the most precious gift of nature to a nation, have too often had a pathetically hard time in the few all important years after graduation when their means were exhausted and they must perforce abandon their noble ambition or plod on under a heavy handicap of rendering assistance in ways of only the slightest educational value. One of our foremost university presidents lately boasted in his annual report that owing to the help of these men almost requisitioned into service, it cost but about one-fourth as much to instruct freshmen as seniors, whereas in Germany the leading professors seek to teach entering students instead of leaving them in the hands of starveling-waged, raw recruits. On the faculty side, I have a list of over a dozen of the ablest professors in the land whom I happen to know, all of proven capacity to do the highest work of investigation, who must earn their bread by teaching rudiments year after year to callow fledglings. Again, perhaps it is too much to expect under our system that any one man can be at the same time a good outside and a good inside president, that is, can do all the work of recruiting students, attracting gifts and selecting professors and, at the same time, of so organizing the work within that each member of the faculty and each student shall be so situated as to have both the opportunity and the incentive to do the very best and highest of which he is capable and thus prevent the waste of superior talent,—nature's best gift to man. It is so much easier to give each professor the same pay, tenure, and duties, irrespective of ability and the value of his services than to realize that the chief duty of the head of an institution is to see that superior merit and efficiency have the same recognition within as it has outside academic walls, whether shown in great teaching ability or in the power to do productive effective research.

But there is a brighter side to the picture to which I gladly turn. The last few years have shown abundant promises of better things. Let us glance at these.

The fellowship system is no longer confused with charity to poor students seeking to fit themselves to preach or teach, which rests on an entirely different principle. It is no longer "paying students to come," as I once heard it characterized by a leading president. It is simply giving select graduates, who will later become leaders, leisure, opportunity and incentive to grow, and in my experience there is nothing quite so delightful as to see these young men, freed from the anxiety of self-support and from onerous duties, grow by leaps and bounds as the best of them often do. The very little I have ever done or hope to do I owe chiefly to the close companionship and suggestive stimulus of such young men who must be served and who are the hope of the world. That I was not entirely arrested twenty years ago and left a dusty, rusty, rutty pedagogue, turning over my little barrel of knowledge annually with only a minimum of improvements, is due to them. Such relations of the senescent and the adolescent mind best realize the too-faded ideal of the antique classic friendship, as set forth in Aristotle and Cicero and exemplified by Socrates and his pupils, for youth and age most need and most help each other here. "Fifteen years ago," said an old professor of a leading university to me lately in a burst of confidence, "they gave me two fellows to make doctors of, and I found I had to do things and new things and that, too, when I was already 51 and had taught to everybody's satisfaction for over twenty years. Well, I had to go to Europe three summers and to take a Sabbatical year on half pay and work like a student again and write a pretty fair book, as I think; at any rate it did me, and I hope them, good, and perhaps prolonged my life and increased my power, but it was pretty — hard."

When the elective system was established in colleges, one of its many good results was the new spirit of healthful competition it introduced between professors and departments in the same institution. Under the old required régime, where the student had no option, the instructor had little incentive to rivalry with his colleagues. If he taught well it was from a sense of duty or because he loved his work or, very rarely, feared he might be dropped for inefficiency. But with electives he had to make his course popular with students and effective or else see his classes dwindle. In choosing their courses students soon learned to discriminate well between indifferent instructors, and the danger of the withdrawal of their patronage was a great stimulus to the professor. All who have seen the change from the old to the new have noted this marked improvement in many instructors, for it is far harder for a dry as dust teacher, even though he have an important course, to succeed under the elective than it was under the old required

system. Now one of the chief needs to-day is that graduate students learn to exercise the same wisdom in choosing between institutions that undergraduates learn in selecting their courses and instructors in the same institution. If this could only become habitual the same healthful stimulus would result. It is in fact, however, now very hard, if not impossible, for a bachelor of arts, who wishes to go further in non-professional specialization, to make this choice wisely and well, vital as it is for him to do so. His alma mater tries to keep him whether or no. His favorite professor and perhaps his mates appeal to his sense of loyalty, a sentiment now greatly over-stimulated by the athletic spirit, and these influences often destroy and render nugatory the general rule that about all bachelors should not fit for higher degrees at the institution from which they received their baccalaureate. Something is generally the matter with a bright student who has not when he receives his diploma already got most of the best out of those professors he has been most with, or else the professor has failed to impart the best that is in him. Hence a new environment among new instructors, mates, scenes is an important factor in making a new start and warming up to another heat for a higher goal, and conversely one of the best tests of a graduate department is to what extent it draws from other institutions or how far it is fed solely by those who have too little initiative to seek other fields. I am convinced that many graduates stay too long with their alma mater and grow hide-bound and come to mistake marking time for real progress because they do not leave the old home and seek another.

If this be granted, the question arises — how shall they find out which is the best elsewhere, or preliminary even to that — how shall they be made to realize the immense difference between the same departments in different institutions, all of which make such a brave show and appeal so alluringly in their catalogues. Many already do sedulously compare the size of the stipends awarded to scholars and fellows, and make simultaneous applications to several institutions in the spring, and in the end accept the appointment which pays most, justifying their course by pecuniary needs. How often every May and June applicants we appoint resign because they are better paid elsewhere. We all know the various schemes devised and now in vogue to prevent this practice. For one, I cannot share the censure often meted out to these rounders, nor am I disposed to complain of the often active competitive bidding for fellows that now goes on each spring, but I do complain of institutions who bribe men thus in order to strengthen by bonuses their own weak departments, letting the strong stand on their merits, and assigning fellowships on the principle of

protecting infant or decrepit academic industries. It is the student who suffers because he has unwittingly sold his right to spend his precious year or two or three in the very most tonic atmosphere the country affords. It is notorious that the biggest stipends are not always paid in the institutions which offer most opportunity and incentive, but that on the contrary sometimes the very fact that a full corps of fellows is assured by the high fees paid them, independently of the merits of the courses given, often cause professors all unconsciously to relax their efforts to win out in this competition by excellence alone. Have institutions whose professors' time and energy are essentially absorbed in undergraduate teaching a right to attract a long list of fellows by pay and then neglect them, drawing them thereby from institutions where they could receive most of the professor's care. It is idle to complain of this which is only an inevitable result of human nature which demands not censure but cure by better methods. Merely administrative remedies for these evils that have been suggested, such as equalization of sums paid to individual appointees by the different institutions, the notification by each university to all the others of its list of applicants in advance of appointments, written pledges to accept appointment required within a brief and specified time, the collective boycott on rounders—all these seem to me entirely unjustified and undignified. We should, however, deprecate all the methods of the drummers or promoters of special institutions now too prevalent for colleges in recruiting for the graduate school. Whatever be said of travelling agents among high schools to attract freshmen by the many clever direct and indirect ways now in vogue through representatives of the athletic field, of the Young Men's Christian Association, or secret societies, or special agents;—every trace of this method should be held to be unworthy of universities which want no travelling recruiters, even in the person of the professors or president, but only plain honest announcements of just what is offered sent broadcast and to all inquirers. Again, to aid the intending graduate student in selecting his institution and his teacher, it has been suggested that each college professor should carefully qualify and announce himself as an adviser on his subject, and one eminent leader has proposed a catalogue of catalogues representing all truly graduate work, and prepared by an impartial committee which would characterize the best and most distinctive feature and opportunities in each university, department by department, professor by professor. But both these schemes seem to me hardly yet practicable and therefore negligible here. We must rather trust to the natural law that real merit will in the end make itself manifest to all who are most concerned.

The true university in this country is like the tawny lion in Milton's story of creation, still "pawing to get free" from the college soil from which it sprung. It is as distinct from the college which trains for citizenship and the work of life as the latter is from the high school, and demands, above all, perfect academic freedom in both teaching and learning. There must be superior ability and training and plenty of means, for the average cost of fitting for the doctor's degree is many fold that of preparing candidates for bachelorship. There must be more or less exemption from many rules and regulations, for the geniuses in our faculties are the most unmanageable of all creatures. Their ideas are often ultra-unconventional and their lives sometimes far from conformable to the prim proprieties prescribed for the college don who is supposed to be a pattern in all things for all students, and the community. Often their expressions on subjects remote from their own, especially as exploited by a sensational press, seem not very consistent with what prudent trustees are wont to consider the interests of the institution. They are not seen at their best walking respectfully along the public thoroughfares, but in striking out new ways, for they are the world's path finders. Like a growing vine, they must often circummatate before they find the right support. Perhaps they are restless with perpetual spring fevers, always wanting to be away on scientific excursions or expeditions or to be released from routine teaching and settling manifold troublesome precedents. They may be moody or their brains seething with new and very upsetting schemes, veritable *enfants terribles* to the president, needing a long line, perhaps special standards and indulgence which never could be made general, but which are always liable to be plead as such by others. They are very expensive and something would be the matter with them if they were not always in the direst immediate need of more money for new lines of research that the world hungers for, but which only they can see and which cannot be explained to any one else. Though none have all, all have some of these traits, but we should remember it is these men who get results, who change the currents of scientific thought and punctuate the history of culture with epochs. It is they who devise economic and industrial processes that enhance the prosperity of localities and of nations, that write the memoirs that are applauded by the consensus of the competent, the world over, that win the Nobel prizes, unearth the dinosaurs, make the gratings that analyze the spectrum, demonstrate the ultra atomic ions, freeze hydrogen, draw the latest maps of the canals on Mars, demonstrate the existence and the nature of ether, unearth antediluvian cities and decipher their history from inscriptions, create new species of plants and animals by

crossing, formulate the laws that underlie industry, trade and the evolution of plant, animal and psychic life and at the same time make us all feel that though this recent progress has been so amazing, the history of science cannot yet be written because the best things have not happened or been found out yet. Nature is still a vast storehouse of laws yet to be known and of forces yet to be utilized in the service of man and the best of us are only pygmoids compared with the superman that is to be. The investigator who is both born and made, such in whom nature and nurture have combined to do their best, who reads God's thoughts after him most truly must be largely a law to himself and needs some special dispensations. The expert who has achieved mastery in one point, small though it be, who is no longer an echo but an authority, whom no one can teach on his own theme but who can teach all the world, he, best of all men, perhaps, knows in his own experience what perfect intellectual freedom is, for his mind has at last set itself into independent action. He stands on the frontier of nature and looks upon her fate with the same freshness of curiosity with which primitive man or the child first viewed her. Moreover, we must not forget that more and more the world is ruled by experts. In the sick room, where life and death tremble in the scale; where the practicability of great engineering schemes is decided; where new problems of statecraft or financial new departures are discussed; in the crucial emergencies of war; in the congressional committee; where important legislation is wisely considered; in advising new economic processes, mechanical or chemical; municipal and government reform;—on countless special commissions everywhere more and more the decisive word is spoken by the expert who has studied all and deeply and mastered his field, who can take a broad comprehensive international view and these universities more and more must supply, for self-made men are less and less adequate to cope successfully with our increasingly complex conditions of life.

At the very heart of the German state, one of the most autocratic on earth, stands a university which is perhaps the freest spot on earth. Directly across the street from the Kaiser's palace I have heard principles opposed not only to those of monarchy and aristocracy, but of government itself openly advocated. An eminent astronomer in Leipzig not long since became a convert to the crassest type of spiritualism, but was allowed to lecture freely upon it ex cathedra. The false and even ridiculous and fantastic views that have been advocated by university professors in that country would make a long, sad chapter; but never has freedom been more completely vindicated, for the bad ideas have always and everywhere perished and good ones have sur-

vived. In most respects the German universities are freer than those of America. The professor here who attacks monopolies or who advocates radicalism in religion or meddles too intently with political problems, like free trade versus protection, often has a hard time of it. Radically, as I personally dissent from the views of the Chancellor of the University of Syracuse, I should deprecate any steps to muzzle or depose him for his utterances, and I cannot but deprecate in advance such qualifications or restrictions of academic freedom as have been advocated by the former president of this university and which have made him, of all men, the chosen spokesman upon this subject in the University of Chicago.

It is now often urged that State universities cannot and should not undertake this work, but leave it to privately endowed institutions which have thus far led in it, and that it will be long before State legislatures will see the need of building these costly higher stories upon the splendid academic foundations they have already laid. But does any intelligent citizen doubt the great practical and industrial value of the immense sums our national government has spent upon research connected with agriculture, mining, forestry, fisheries, irrigation, labor and the rest, or would any eliminate the expensive work done in astronomy or anthropology, the results of which are not materially practical? Or if things "made in Germany" impress us, we may remember that she leads the world in chemical industries with an annual profit of \$103,000,000, the six leading firms there employing an aggregate of 685 university trained chemists. Is anything better demonstrated to-day than the fact that original research pays if we wish to put it on that plane just as we know from so many statistical curves how profitable higher education is, each year of training adding in a marked way to the worth of the average student who takes it whether measured by his own annual income or by the contribution he makes to the wealth of the country? There are few more impressive spectacles in the land to-day than the splendid emulation of the few leading State universities who have lately become old and strong enough to have leavened the legislatures of their State with the saving new sense that they must have each year all the appropriation they can profitably use. If this policy of lavish expenditure has proven so profitable for the nation and for Germany, why not for the individual states in aiding them to develop their own peculiar resources? Certainly regents and legislatures are not less far sighted, not less confident of the indifferent progress of science and of the country in the future than are the trustees of older endowed institutions, and just as surely there can be no dearth of talent to penetrate and harness nature's resources if only there are sufficient incentives.

To be sure, we yet lack some of these. A great professor in continental Europe has many motives and rewards not offered him here. In some places he can have a year and often three, off for the asking and sometimes with full pay. Some of the most eminent savants, like Van t'hoff, are entirely exempted from teaching, and are practically given the freedom of the city and the country. A few others, like Arthur Thompson, are given facilities to attract the very best men in the land, if not in the world, about them where they work together all day in the laboratory, discuss details of methods and results and pool their individual knowledge and suggestions into a collective fund at meals in common. Others are knighted and given various badges and insignia of honor, patronized by king or emperor, made members of the choice circle of the Forty Immortals and of national academies, elected by the suffrage of their peers, are consulted and highly paid by every legislative commission and new industrial enterprise where expert knowledge can be utilized, allowed to profit to the uttermost by the fruits of their labors and if they fail to do so are generously pensioned by the government, perhaps buried in Westminster Abbey like Lord Kelvin, given public monuments of bronze and assured the highest social position distinctly above that which millionaires, even by birth where that counts for so much, can attain. These things, as human nature is, are incentives of inestimable power and of which our republic cannot yet supply a parallel, much as we have accomplished without it.

The history of real university work in this country is brief, for it begins with the Johns Hopkins University in the sense that there first a group of experts devoted their chief or sole time to graduate work and to research with fellows free to co-operate. Perhaps specialization there was at first and in some cases somewhat premature and extreme and its young doctors soon found in most American faculties were a little too prone to lecture methods for callow students and to affect research before foundations were laid, but these tendencies tend to rectify themselves. That foundation will forever mark a noble epoch in the history of the higher pedagogy here. Then came the era of fellowships and of publications of the results of investigation in serial monographs and new journals. The three universities almost simultaneously founded—Clark, Chicago, and Leland Stanford — specially provided more or less for the most advanced work. Later followed the foundation of the Association of American Universities for the discussion of specific graduate topics and also the special societies of mathematicians, physicists, psychologists and the rest which have proven a source of great and wholesome stimulus. We must

note here the attempts to improve and to some extent reorganize the work of the national academy and of the American association, to say nothing of the recent great enlargement of the scientific work at Washington. In this list, too, belongs the Carnegie Institute for the advancement of science and also the pension institution of this great donor and many other individual bequests for special lines of medical and other research, the Princeton tutorial system, partly graduate, which, although largely undergraduate, has had a beneficent effect upon graduate work. We seem to be lately in an era of comprehensive plans for new organizations for scientific exploration galore intended to appeal to the minds of philanthropic millionaires which need only their subventions to be translated from dreamland into actuality, but which show that our best men, young and old, are seeing visions of still further advance.

In the impending progress in this line which seems now so certain, so great and so near, we may expect one modification of older academic programmes. Fifteen years ago it was quite commonly assumed that pure science ranked not only far above, but must pedagogically precede applied science. A former colleague of mine at Johns Hopkins used to say that in deciding between two problems of research, one of which promised great utilities and possible wealth to the community or to himself, while the other was void of all applications and did nothing but advance the sum of human knowledge or fill a gap in the logical scheme of science, the latter should always be preferred. But I think that now, scientific values being equal or even approximately so, the problem that promises most useful results would always be preferred, even for pedagogic reasons, because we have learned that the sense of being in touch with human needs and the prospects of general benefit and ensuing popular recognition are a wholesome, sanitizing, as well as a most potent stimulus in overcoming the great difficulties with which the discoverer has to contend. But on the other hand, sad will be the day when the keenest minds are not fascinated by the pure love of new truth for its own sake and are not alert and put on their metal in its pursuit, even though it can buy or bake no bread and do nothing whatever, save to gratify the noetic passion. For it is often just these most unfruitful achievements in the field of purely theoretical studies that often afterwards open up the way to the largest utilities, while at the same time at the very least, science is inexpressibly precious because it is the simplest and most economic way of knowing the universe because it enables us to bring innumerable details under the majestic sweep of a few great laws, and thus is the most effective way of organizing the brain in a compact, strain-resisting way.

Only 102 years ago the power of Prussia was shattered by a blow, at the battle of Jena. Its army, its industry, its trade were gone. The country was impoverished and its capital garrisoned by French soldiers. Its soil had never been fertile, nor its spirit practical. There were strong nations all about it, with no defence of natural boundary and the history of the country had shown more discord than unity. The German race had never known such humiliation and the future never seemed so dark, but the stock was vigorous and with indomitable zeal the work of national regeneration began. The entire military system was reorganized on essentially its present basis. The land laws were reconstructed and the peasant freed. Patriotic societies, athletic, philosophical and literary were founded everywhere, but the key word was spoken in Fichte's thrilling addresses given every Sunday evening through the winter in Berlin with Napoleon's sentries at the door and his spies stationed through the hall. He said in substance—"We still have strong, sound bodies, a language without admixture of foreign tongues, and a pure blood. We have achieved the work of the reformation. If we fail, freedom dies with us. There is but one way of national regeneration and that is the way of education which we must make our chief task, our duty of duties. It is schools that must set the nation free and educational currents must flow downward from great universities. We must realize again in the world the republic of Plato where the wisest rule and education is the chief problem of statesmanship, and experts must bring all available knowledge to bear upon the decision of every question. We must adopt this policy as our destiny, our leaders must be our professors, priests of truth, and in her they must think fearlessly, and in all directions must investigate, discuss, do and if need be, suffer all things in the world's great holy cause of science and learning. To this end he invoked all ranks and classes, for only thus could the united fatherland, long hoped for, long delayed, become real and men of a higher type be evolved. Thus Fichte spoke and was heard as no one had spoken and been heard since Luther. For him higher education was the supreme cause of the world. It was under this impulse that the university of Berlin was founded in 1812 and along these lines the fatherland has become the most effectively governed as well as the strongest military power since ancient Rome. Just as the Reformation spread to all lands, so she has set educational fashions everywhere, and just as two generations later, in 1870, the military results of this policy surprised the world, so since her marvellous conquests in the fields of industry and trade are conquering by the methods of peace and all has been done by her educational system capped and led by the university.

Finally, who will deny that science in its widest scope including all the physical and humanistic branches is the greatest achievement of man? To contribute a tiny brick to this great edifice, men are content to spend laborious lives, to become laboratory hermits, to explore with great hardship, labor and risk and even in inhospitable lands, to deny themselves, if need be, the luxury of polite general knowledge and focus their energies upon highly specialized themes in order to know and to teach the world more of the laws of force, energy, life, health, reproduction and disease. Think of the thousands of devoted lives that have been built into the great temple of scientific truth, sometimes into a single instrument or method which Raymond thinks constitute the best guarantee that the world will never again relapse to barbarism, and think what the world to-day would be without this priceless body of organized, demonstrated truth which underlies not only the culture but the very civilization of to-day. It is of this structure that universities are the chief organs and for that reason, also, the best nurseries of talent, doing more and more to bring it to its highest maturity. It is they that set fashions of thought, find out more economic ways of knowing things and grasping truth as revealed in nature and men. It is the efficiency of their work that more and more determines in the land the quality and standards of the pulpit, of the bar, of medical practice, of technical and industrial efficiency, and they are ever entering and dominating new fields of commerce, government, education, and some of them are making their influence felt by courses designed to lift the standards of journalism, diplomacy, finance, music, drama, architecture, etc., and under this expansive policy no man can set limits to the scope or influence of the university of the future. In view of all this, what true knight of the Holy Spirit of truth can refuse to the new department you begin to-day his hearty, ungrudging and reiterated God-speed?

## PSYCHOLOGY OF CHILDHOOD AS RELATED TO READING AND THE PUBLIC LIBRARY.<sup>1</sup>

By G. STANLEY HALL.

One of the most significant culture movements of the last few years in this country is the invasion of the library upon the school. In the *grades* the library now goes to the school and the school to the library. Librarians make the children's reading room attractive and tell stories even on fine days when some children ought to be out of doors, and offer most seductive lists of supplementary reading for every grade and topic. The library often takes sole charge here and should take charge of those beyond school age. The *high school* expects the pupils to find help in the library for debates and composition, if not for daily lessons, and librarians teach them how to get at what they want. In the *college* and the university the library is becoming more and more the heart of everything and the professor a grand chamberlain to introduce books, give their credentials and inspire students to read them. The library is the centre of the seminary and a necessity even in the laboratory. More and more of our college dons' teaching is where to find what literature may be wanted. Now, for young people, nearly half of whose body by weight is muscle, to sit in closed spaces in the usual reading postures and exercise only the muscles of the eye that weigh two ounces, monotonously zigzagging across the printed page, while nearly a quarter of fourteen-year-olds develop eye defects, presents a serious problem in racial hygiene. If the child actually becomes bookish something is usually the matter with it, but despite the dangers, the advance of the library upon the school is on the whole a vast benefit for the latter, which I would represent to-night, and I could easily consume my hour in describing actual and hoped for good results.

One danger, though, that now looms big is that of mediocrity, of the second or tenth best in literature, for the great problem of selection from the so rapidly growing mass of juvenile books written for children is by no means solved, not even in Germany, by Ziegler's *Jugendschriftenwarte* with its 78 com-

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<sup>1</sup> Address at meeting of the New York Library Club, New York City, Jan. 9, 1908.

mittees in 28 German states, or by Wolgast's two books and Prüfenausschüsse that gets often a dozen expert verdicts for each book and accepts or condemns to oblivion, a muster that it is hard for a poor book to pass, and upon which the sentences pronounced are crushing. The sad fact remains that children can develop a veritable *cacoethes legendi* or a passion for reading *per se* things on or below their own level, mere ferment, artificiality and vanity, that they ought to learn in the more vital ways of experience and conversation. Printing gives no added value to commonplaces and the reading habit should not dignify platitudes. Apprehension through the printed page is slower and involves more nervous strain than perception, and the book is liable to get between the child and nature and life. Child life in the field, on the street or at home is rich and must not be encroached on. Not only may the new knack of reading or seeing familiar things through the medium of print by authors who strive to get down to the children and tickle them by quaint affectations of style and sickly sentiments become a distinctly neurotic habit, but it may make things near seem afar and unreal and bring mental anaemia. The charm to a country child of reading in the first grade literature of the cow, pig, dog, cat, which he knows so well at first hand, is almost meretricious, and the same is true for the city child and also up the grades. Nor is it well to spend much time in reading about what every child is certain to learn anyway at first hand a little later. Thus the precept to read only what adds something essential, that could not be got otherwise and outside the stern and narrow time and place limitations of the child's individual life, would reduce many of the lists, and neither in the school nor the home can or should the book compete with the oral story. So, too, illustrations should be many of them colored. Most of them full of action with broad and simple treatment, perhaps draw-able; not too often making really pitiable misfortunes humorous or jocose, and thus blunting pity or suggesting mischief, like "Peck's Bad Boy," but with plenty of animals and children, though not of the Greenaway short-waisted, doll-faced type that never grow up, and which charm adults, but cannot compete for the suffrages of children with the rough daubs of Struwwelpeter.

When the child can read and its soul can take flight through the vast psychic spaces represented by books, there are also new possibilities of degradation, moral, physical and mental, and just as, since charity is now a science as well as a virtue, we must not give doles to beggars indiscriminately lest they pauperize and besot, so we have no right now even to teach reading without taking every possible precaution that the vast-

ness of new opportunity cause no decadence or bring muddle, for nothing is more dangerous than great ideas injected into small minds, or lurid tragedies made the habitual diet of excitable souls, as in yellow journalism. Possibly the world's best is too *great* and just barely possible its undiluted best is too *good* for some children. Books true to life and that interest are sure to have some bad characters and acts in them, but perhaps the pale bookish way is the best in which to make children acquainted with the inevitable evil they must know. Even the Sunday school library, the function of which is now happily growing, must and does not now exclude all but goody books.

Differences in reading tastes between boys and girls, which are very slight in early childhood, not always sufficiently known or taken account of, appear several years before puberty and thereafter increase rapidly. These differences are so spontaneous and universal, so well established by many statistical studies by various methods upon so many thousand children (the chief references to which I here append) that they should be duly recognized by librarians, teachers and parents. These are among the most interesting and important revelations of how very diversely nature has decreed that the soul of the two sexes should develop. Chief among these taste differences are the following: Girls usually read most books. If they do not acquire the habit earliest, they certainly maintain it after that of boys' has begun to decline and some censuses indicate that they read most at all ages. Even at those ages when they certainly read most, viz., the later teens, they read fewer different books, that is, a larger number read the same. Girls rely more upon the recommendations of teachers, older companions, and others, while boys show greater independence and individuality of choice, and hence use on the average a wider range of books. Girls read what others read, while the books others know have less charm and sometimes almost repel boys who prefer to be ignorant of what all others about them know, and to interest themselves in what none or few others have read. Again, secret and clandestine reading of literature that is condemned, forbidden or disapproved is more common among boys, for prohibition attracts them and arouses their curiosity. They more often fall victims to the literature that it is a crime to print, circulate or own. The vast amount of this literature now confiscated and destroyed by the purity societies shows at once the extent of the danger and gives hope that protective agencies against it are becoming more effective. In the teens, boys often look somewhat askance at reading recommended to them by lady teachers who often quite fail to understand how widely their tastes differ from those of girls. With the present

feminization of teaching, therefore, boys are more uncontrolled in their reading. This, I think, we may connect with the oft-noted fact that men, young and old, often condemn much which they used to read when young, while women are more prone to advise others to read that they did when girls, their mature judgment more often coinciding with their childish tastes. Both sexes love literature about animals but in a different way; girls preferring accounts of pets and domestic animals, while boys care most for the literature of wild, savage beasts, and for hunting. Girls love cats, which ripening boys often abhor, strongly preferring dogs, often sharing the enmity of the Canidæ for the Felidæ. This may be atavism, for men were huntsmen of old, while primitive women domesticated nearly all the animals that serve man.

Again, boys read most history, science and travels; girls most novels and poetry. The historic interest of the latter is more often personal and biographic. Boys love adventure, girls sentiment. Women writers appeal far more strongly to girls in the teens than to boys, for whom at this age few women can write attractively. In childhood, both sexes are interested in fairy tales but girls most, and while boys practically cease to care for them by the fourth or fifth grade, girls' zest continues through the sixth, seventh and later. Girls care far more for niceness, whether of style, binding, illustration; treat books better and are more amenable to library rules. As between content and form, girls care relatively more for the latter, boys for the former. Girls love to read stories about girls which boys eschew, girls, however, caring much more to read about boys than boys to read about girls. Books dealing with domestic life and with young children in them, girls have almost entirely to themselves. Boys, on the other hand, excel in love of humor, rollicking fun, abandon, rough horse play and tales of wild escapades. Girls are less averse to reading what boys like than boys are to reading what girls like. A book popular with boys would attract some girls, while one read by most girls would repel a boy in the early and middle teens. The reading interests of high school girls are far more humanistic, cultural and general and that of boys is more practical, vocational and even special. Girls' interest in love stories and romance is earlier, far greater and continues longer than with boys and the same is true, although to a somewhat less extent, for society tales.

Reading crazes seem to be experienced in some degree at some time by the majority of school children. Some read for years with abandon and intoxication, rushing through an amount of literature that would seem incredible were not the evidence so abundant, while with others the passion is milder

and briefer. It usually occurs just before or perhaps in the early teens when it seems as if the soul suddenly took flight, awakening with a start to the possibilities of transcending the narrow limitations of individual life and expanding the personality toward the dimensions of the race itself as if trying to become a citizen of all times and a spectator of all events. This is one of the most interesting phenomena of youth standing tip-toe on the mount of expectation as the vista of life first bursts upon his view. Those who experience this in full measure are never the same thereafter. It seems to occur somewhat earlier in girls than in boys, and to more often cause a bifurcation of the inner life of idealization and fancy with the outer life of dull and often monotonous daily routine, especially of a girl's life in school or home. In reverie, she dreams of wealth, splendor, heroic wooers who take her away to a life where all desires are fulfilled, where the possible becomes actual and castles in the air materialize. This also often makes the future seem so rich and full that some disillusion is inevitable later. Boys in the book craze also sometimes read away from life, but feeling that their destiny is to be of their own making are more liable to be spurred to action, occasionally, to be sure, to run away, to fight Indians or become bandits or beat their way to a city and to fortune, but usually to strive to achieve more legitimate ambitions, to win fame, fortune, beauteous maidens and to do great deeds. Ruskin and others since have deprecated the danger of such passionate devotion to the reading of the best things life has to offer him lest ordinary life pale by comparison and become humdrum and insipid and home and parents seem stupid and commonplace; but is it not on the whole well to feel strong and early the spurs of that discontent which is the first step to the betterment of both self and environment?

There is still a far too wide difference between the reactions of children to spontaneous reading and to that prescribed for them by adults. From eight or ten on into, if not through, the teens, every statistical study yet made shows a rapid rise in the amount of reading chosen by the children themselves, while both Barnes and the Hartford Report show a striking decline in the stated reading which the school demands. Though it be done, it is with steadily declining interest. The ponderous list of the Wisconsin State Superintendent in 1902, of 1,588 books for high school libraries selected chiefly by principals and college professors, a list outside which it is illegal to purchase either books or editions with library funds, seems to me a good modern instance of an organized attempt to control pupils' reading by adults without sufficiently consulting their tastes. The same is true now to a greater and now to a less

extent, of half a shelf of books, pamphlets and articles I have collected (the 100 or 500 best books, standard child libraries, courses of reading, sometimes approved by formidable lists of literary and other great men and women, etc.). Some of these lists omit many of the good books that children would have voted in, had they been consulted, while others contain most of them, but with nothing to designate their popularity with juvenile readers or to distinguish them from adult prescriptions. It is already possible, however, to make a good beginning of a juvenile library of books children of each age prefer and one of the chief needs of the day in this field is more statistical data of what they love best and a canon of child classics or Bible compiled from their suffrages or of what they most often recommend to each other. Those are greatly in error who think we have solved the problem of children's reading. We have, in fact, just begun to see its dimensions. We can, however, already (1) perceive some great crying needs of books of a kind which do not exist, (2) discern the outlines of a method of selection not yet applied, and (3) some principles of elimination by which an index expurgatorius could be begun. Let us consider these.

I. We need a series of animal and bird books of which as yet I have never seen a single proper specimen; for instance, a monkey book, a book devoted to the wolf, one each to the fox, bear, lion, tiger, elephant, dog, eagle, ants, bees, wasps, and two or three dozen other forms of animal life. In other words, there should be a child's animal library, and here some publishers or authors are certain to make fame and fortune as unexpected as that which came from the *Teddy bear*, from Uncle Remus '*Brer Rabbit*', from *Black Beauty*, or in the Middle Ages centered about the living totem of the lower classes, *Reynard the fox*, of which a thousand editions are extant. The veins of interest here are comparable to those producing natural gas, oil, coal and other great resources when their richness was first perceived and great results are certain, provided only the exploitation be right. Certain principles can be laid down with confidence as follows: Each of these books must be very copiously illustrated, often in colors, and all the recent nature books, not faked, must be cross-sectioned and laid under tribute. Let me describe one or two of these ideal but as yet non-existent animal books for the young, beginning for instance with the monkey book. It should first describe from all available resources the life habits of typical species, how they live in troops, their leaders, their battles with each other and with the enemies to which they are most exposed, how some of them break up into family groups at the pairing season, how they carry and care for their young, the daily routine of the male

and the female, the dangers to which they are exposed, their food habits, how they sleep, their migrations, their organized forays, their diseases, parasites, reactions to extreme heat and cold, their language—all these compiled from trustworthy sources now so accessible, copious and well known, but widely scattered. While true to fact, the style should be lively and the anthropomorphism frankly seen, to awaken and sustain humanistic sympathy. Another chapter should be devoted to the monkeys in captivity, their domestication, characteristics of species and in these their training, its methods and results, with biographical sketches of famous apes, particularly the four great species now living, chimpanzee, gibbon, orang and gorilla, with plenty of authentic anecdotes, etc. Another section should tell of monkey myths from the ancient Hindu war against Ballin, king of all the monkeys, to the way in which primitive races that know them best regard them, with fables of their imitativeness and others traits from Aesop down. Then, too, there should be a brief and popular story of the surprising results of recent experiments upon ape intelligence and educability. In another section for older readers there should be a few skeletal comparative plates showing species and the relation of their frame to that of man—perhaps all on a single page with another page of comparative embryological development, and one or two more to illustrate comparative anatomy of other organs and one or more outline maps should show the habitat of different species which should be represented by cuts as numerous as in Brehm. In a page or two there should be a brief statement about the fossil monkeys, particularly the great ones ending with the Java pithecanthropus, the missing link, and a paragraph should state some of the Simian traits in men and in babies. What is wanted is a general survey of all that is known with stress not upon morphology, but upon behavior,—all condensed, simplified, humanized, richly dight with moral and copiously studded with incident and story in a way to awaken sympathy and give knowledge of the forms of animal life nearest to man—possibly his cousin, having a common but yet undiscovered ancestry.

So a comprehensive dog book constructed on somewhat analogous principles with a little about pedigree, domestication, and many cuts of breeds, a great deal about disposition, the manifest services which dogs have and still render to man, etc., is another need—their courage, devotion, stories, poems as numerous perhaps when brought together as those on trees collected by the writers of Arbor Day monographs. With this might go the very educative experience for a boy of owning and caring for a dog. Nearly every trait of human character is seen intensified and simplified in the instincts of the canine

species, so that a good knowledge of dog psychology and ethics is one of the best pedagogic introductions to the study of human nature, and the same would be true with variations and diverse degrees of the other books.

Such a library would awaken a deep and often dormant interest in the parents themselves and bring them into closer rapport with childhood. Children have a right to revisit thus the ancient paradise of the race when men knew more and lived nearer to animals both hostile and friendly and often worshipped them or derived their descent from them, for they have been on the earth indefinitely longer than man. Lacking this there is in the child's soul a missing link greatly needed in education, a vacuum which may be filled by the regenerative psychic tissue of morbid fears, perhaps of imaginary creatures or by cruelty, but I can only suggest this and must pass on.

II. Another crying need of childhood for mental pabulum even in this age of juvenile books is for condensed and simplified stories of the great mythic cycles, epics and classics that arose and took form in the youth of all the great races that loom up in history. There is a rich mother-lye of culture that has vitality enough to survive for ages before and without the aid of print and which constituted about the whole of the educational material of older days. When this shoots together into such ethnic monuments as Homer, the Niebelungen, the Arthuriad and the rest, it welds tribes together into races. To this, far back though it be in time, the soul of youth is nearer than it is to the last election, for where the world is young there youth belongs and is at home. I have several score of books epitomizing this material for youth, and although they are of different degrees of merit, the best of them do not, in my opinion, quite fit youthful nature and needs. To bring them home and to bring out their full power, they must be fluidized again and their material put through a long and laborious process not all unlike that to which they were subjected in the dim ages of the scalds, bards and other transmitters and molders of tradition. This is a new and great pedagogic demand and next step inevitable, I am optimist enough to think, because needed. It will require the co-operation of many people and many years to complete it. These great classics of the world must, in a word, be re-edited jointly by teachers and other adults on the one hand working with children somewhat as follows. Let each who enlists in the work select some story, be it Orestes or Hamlet, Ajax or Philoctetes, Faust or the Wandering Jew, or any one of a hundred others, master it, feel all there is in it, and then tell it to children as effectively as possible, but always have them, after a brief interval, give it back in writing or orally in order to show just what parts

and phrases sunk deepest, were retained with the greatest fidelity and exerted the greatest influence upon the youthful soul. Upon this basis, the telling version should be revised and recast and the story told again and given back until at last, like an actor who has played the same part for years and may have changed it to something quite different from and more effective than what the author made it, he can say—this story thus told best fits children of a certain age, for instance, in this form those of six, in this those of ten, in that those of fourteen, etc. When many have done this for many of the best story radicals, we shall have begun to evolve a true child's canon of the great classics of the race. These versions should be shorter, simpler and very different in many respects from the originals and from the editions lately made by editors in their studies without the aid of children, but immensely more effective. May we not say that every child might demand as a right long withheld to feel the power of these great, supreme traditions of mankind? They are charged with moral power, mental stimulation and aesthetic inspiration. No creation of individuals can approach them in either of these respects. They are like the eternal stars, while our contemporary *ad hoc* stories are like tallow dips which may obscure the light from the planets themselves, merely because they are so near. Occasionally, the text itself of these old legendary themes cannot be improved on for the young, but there is always much that needs to be elided, much to be condensed, perhaps still more that needs recasting in form and may be made very telling, while if read as it stands in the text, it takes no hold whatever. Some great themes, like for instance, the Golden Age and Paradise, still need original mosaicking and editing, and could then, as Pfleiderer says, be made of great worth. Now enough of this editing has already been made to show both its practicability and its great educational value. One of the chief pedagogic tasks of the rising generation, then, must be to re-edit these grand mental sources which have made nations and races, which have been the nucleus about which culture and nations have evolved *pari passu*. Some of them have been reconstructed many times by master minds for adults, but children have as much need of them as of the homunculi called dolls or reduced adults or of toy engines or the many other masterpieces of mechanical simplification in the form of playthings. Why should not the story-tellers league with its 5,000 members essay this task? Nearly a score of years ago the French, when their education began to be laicized, commenced to sift over all their own literature and history in quest of the tales, incidents and proverbs illustrating honor, glory, self-sacrifice, etc., for a moral inspiration to fill the ethical vacuum left by the elimination of Scrip-

ture training in the schools. The labor involved in our task is a yet higher and harder one, but is also more needed, and that it will be achieved I am convinced with no shadow of doubt, for youth must be served.

III. A third new type of child book we need is an account of primitive and savage life. Frobenius in his "Aus den Flegeljahren der Menschheit" has shown almost like a revelation what can be done and how the right article is welcomed. He was an anthropologist and has compiled with over 400 cuts a simple story of how the lower races live, hunt, play, weave, manufacture, cook, eat, sleep, fight, their myths, religious ceremonies, family and tribal organizations, etc., laying the vast resources of ethnology under tribute to show the young how the great majority of men who have peopled this earth in the past, and a good fourth now living, actually meet the problems of life, regard sun, moon, stars, sea, trees, animals, fields, fire, lightning, the clouds, and think of the origin and end of man and all things. All this is very near to the child. Infestation betimes with knowledge of these primeval forms of life and mind at the fit age when contagion is easiest is like vaccination which renders immune many forms of vice and hoodlumism later. The German language, Közle tells us, has 914 words in common use for children's faults and less than half that number for their virtues, for evil is far more varied, striking and, in a word, interesting, than uniform moral correctness. Here, then, is another line of juvenile literature needed and, therefore, sure to come.

I have only touched a few points in this vast field, but I cannot close without an earnest plea for more oral story telling ways of introducing books to children. Mankind heard and spoke for untold ages before they wrote and read. The ear and mouth way is shorter and vastly more effective than the long circuit tract of pen wagging and taking in meaning from the printed page by the eye. In the great literary eras in France conversation gave the style to books, and in the dull periods conversely books gave the style to conversation and people talked bookishly. Thrice happy the child who makes its first acquaintance with the great monuments of literature which arose when the world was young, not by reading, but under the spell of the story teller's art! Thus, till lately in the world's history, all knowledge was imparted from the grown-ups to the rising generation. Thus the great men and women and heroes of an elder day that letters depict lived on from age to age, and the tales of them slowly took shape edited by the folk's soul into the great mythopoeic masterpieces, for these are the quarries out of which the master workmen in literature obtain their material. In early plastic oral form these were

meaty and condensed and grew to have a chiefly ethical content almost in proportion to their age. Next to telling is reading to children, and for one I care not how much even this function encroaches upon school time or breaks up its routine. As to reading, and especially at adolescence, it is chiefly to satisfy the feelings which then and thereafter are three-fourths of the soul and represent the life of the race, while the intellect is chiefly an individual product and therefore more accidental. Four great definitions of education by four of its greatest prophets are that it consists of learning to fear aright, to be angry aright, to pity aright, and to love aright, and thus the instincts and sentiment are tuned to the world without. Girls, who cultivate heart must, of course, have love stories, and although they must be pure, there must be enough of evil to suggest adequately some of the degrees of vileness in the world, though always with the triumph of virtue sure in the end. Literature should perform moral choices, which having acted aright in ideal cases will be more likely to do so in real and trying emergencies. Urgent as are practical needs in our age and land, librarians seem now likely to be held more and more responsible as guardians of all those educational agencies that take the individual out of his narrowness into the larger life of the race. Hence, I believe you are only just at the beginning of your task of ministering to the young.

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## THE FUNCTION OF MUSIC IN THE COLLEGE CURRICULUM<sup>1</sup>

By G. STANLEY HALL

As a mere layman in music I accepted your invitation to speak upon this vital subject with great diffidence and only after much hesitation. I am here because I wish to plead for a few things which, as a psychologist and educator, I do not think academic teachers of music sufficiently recognize. I will put my points categorically in the hope that I may profit by your criticisms.

I. Musical culture in its large sense is the most liberal and humanistic of all studies, perhaps not even excepting literature. Thus, from this, it follows that there is no subject in the high school and college curriculum that should be taken by so large a proportion of students. About every young man and maiden should do something with it. Why do I make so large a claim? Because music is the language of the feelings, sentiments and emotions; or, in a word, of the heart, and because these constitute three-fourths of life and all of them come into being or are immensely reinforced and augmented during adolescence which covers all the early teens and the very early twenties. Speech, on the other hand, is the language of the intellect, but the feelings are older and vaster. The intellect is chiefly a product of the individual development, but the heart represents the race and is hence more generic and basal. We Americans are more prone than any other race to be defective, ungemütlich, more liable to have our emotional life grow sterile and desiccated. This it is the function of music to restore, deepen, enlarge, intensify and express. Our very language is prone to be deficient in action, feeling and speech music. If we have feelings in youth, we soon come to deem it good form to conceal them, even if they are good and wholesome, although thought itself, if not painted and toned by sentiment, is arid and dead. Music makes the world tinglingly real again. It restores the soul to meanings, and the great tone poets who organized the sound world take us out of our narrowness into the universe and make us feel the cosmic powers. They add new

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<sup>1</sup> Address at Music Teachers' Association, New York City, Dec. 28, 1907.

and brighter colors to the palate of experience and not only discipline the heart but free us from false, frivolous, languishing, bad feelings, create new blends of them and give us the more and fuller life for which we pant and of which our nerves are scant. Music, like God, sees only the heart. It is a language of quintessences, the only perfect philosophy and true metaphysics. Modern aesthetics shows us in great detail how national and historic music reflects the *soul* of races and ages, Greek, Italian, Teutonic, French, etc. In such phrases, which represent the essential view-points of Schopenhauer, Helmholtz, Gurney, Harweis, Stumpf, Halich and others how can we avoid drawing the momentous practical inference that more and better musical culture is one of the chief needs of our age and land? So my first plea is for more extensive musical culture, that almost all our academic youth learn to sing or play or, at the very least, be taught to know, love and more intelligently appreciate good music in order to normalize and regenerate their emotional life, to make them feel country and nature in all their respects, religion in all its breadth and depth, home and native land, to sanctify and idealize the affections and even war if in the course of human events it should become necessary to risk life for country. Relegate to the second or third place the technique that all teachers tend to push to the foreground and constitute yourselves guardians responsible for the vigor and healthfulness of the emotional nature of the young. Break the iron law which tends in the kindergarten to put Tonic Sol-Fa in the primary school, intellectual instruction in staff, scales and intervals in the grades, and the theory of harmony, counterpoint, orchestration and instrumentation in the college and university ahead of wide acquaintance and intimate heart to heart appreciation of a generous repertory of masterpieces. A German fifth grade class I once visited could sing for me any one of fifty chorales or folksongs by heart; but could not yet read notes. How many of the great composers knew the intricate theories of super and subdominant triads, dispersed harmony, inverted suspensions, or could have passed one of our college examinations in Spalding and Chadwick? Too much technique, too early and with too little familiar acquaintance with music, is the letter that kills. I know a high school that had a vigorous choral union of seventy instruments and voices combined and which gave half a dozen concerts during the year of, on the whole, very good music until a university hard by heard of it and decided to give credit for entrance examinations in musical theory with the result that the half dozen leaders withdrew from the union (which soon collapsed without them) to study theory from books.

Some American colleges encourage banjo and mandolin clubs, composed usually of two or three crude amateurs who can snap off a few popular catchy and perhaps even 'kicky' airs and a larger number of accompanists who can just play a few chords, and permit these organizations to give concerts and perhaps to make tours occasionally contributing to their expenses. Often glee clubs are organized on a similar low level, who croon college ditties of the Polly-wolly-doodle or Mary's Little Lamb order. The fatuity and utter banality of the words and the cheapness of the music of the lowest strata of college songs soberly sung by rows of stalwart college barbarians in evening dress often suggests downright infantilism. The fun of it all has a pathetic tang for every musical connoisseur, and when such clubs essay serious sentiments, these are all so crude and lush that such performances constitute a unique badge of our national (academic) inferiority in music. Institutions often think such concert tours valuable as recruiting agencies because callow youth of the home town admire and wonder and are made converts thereby to the higher education. In the programmes there are usually samples of ragtime and of the latest, lightest comic operas to which admiring audiences beat time. Perhaps all this has its place, a touch of it but not too much of it, but it belongs to the fraternity house, the athletic field beside the college yell or lower down in the high school. Its elemental rhythmic quality is basal as the tom-tom and has its place, but like much of our school music, it belongs to younger grades. At any rate, most of the best agree that this is a musical level which the college should now ignore and which a department of music ought to discourage, because over-cultivation of this stage is very easy and, where it occurs, it tends strongly to arrest the higher development of musical ability. I am convinced that many American collegians are now suffering arrest from the hypertrophy of this crudest and most rudimentary form of musical propensity—and among these I must, alas, count myself.

II. As to musical training for intending school teachers, great disparity is found even in colleges which have both a normal and a musical department. Some even of the latter make no provision for teaching music to the pedagogues that seek degrees from them, professors holding such work to be too elementary for them to engage in or having no time for it. In most such institutions something, but too little, is done and that little is almost always ill-adapted to its purpose. In these respects we have very much to learn from the higher normal courses of Europe, and especially those of Germany, where the theory and practice is roughly as follows. The very first consideration is the sentiment taught or reinforced by the music,

for here lies its chief educational effect 'since it can train the heart as nothing else can do.' The theme of most vocal school music is either nature, home, country or religion, and its value is chiefly measured according to how much it can do in strengthening loyalty to these. Next comes the quality of the music itself, and of course all the works of the great composers are ransacked to compile from them a curriculum or canon of the best. The teachers must know several scores of selections both words and music by heart, and be able to teach them by rote. Folksongs and ballads lead, and next come simple, but often exquisite selections or simplifications from the great composers. Every academic student preparing to teach in Germany must not only know a large repertory of such songs, but must play the violin or piano, the former usually preferred, especially for rural schools. Nearly every teacher can, and must sing a little, and most of the music in the folk schools is taught by regular teachers and not by specialists. To fit young men and especially young women for such work is the chief function of this academic department. Everything technical is subordinated to the spirit abroad, thus, music is felt. Here, on the other hand, colleges train prospective teachers, if at all, chiefly in technique, note reading and with only the slightest regard to the quality of the music or the subject of the song, while the publishers sell annually tons of juvenile music books chiefly devoted to method, to analysis of processes that never ought to be analyzed, at least for novices, inane exercises, cheap songs, many of them manufactured by the authors of the text or selected almost at random with little regard to educational values; but often for purely methodic reasons. Just as bad English teaching almost invites slang, so unpedagogic musical instruction invites the cheap kind of music which is often a positive obsession that haunts adolescence in high school and college and leads to the kind of musical emporium I discredited above, for musical jingles that cannot be banished from the mind, but cling like burs, are products of bad musical education. The college training of future teachers here needs two things: first, far more special attention and time, and second, a radical reconstruction of both its matter and methods. I wish this Association would appoint a committee to review this function of college departments of music.

III. Another function of collegiate instruction in music is to cultivate in those who will never become performers good taste and the power to appreciate and understand music. This is often a specified function and is one of the purposes of college concerts, recitals, festivals and of some of the courses, especially those in the history of music and the biographies of musicians. As a branch of all truly liberal culture, music can

now claim a high and ever higher place. Modern psychology and aesthetics can hardly lay too great stress upon the educational value of familiarity with the great works of the best masters for young men and maidens. The coming theory is in outline, that good music faintly awakens the echoes of the ancestral experience of the race and causes the psychic traces and rudiments of what our remote forebears did, suffered, feared, loved and fought for to reverberate again in our souls. The great composer wakens these dying echoes and causes the soul to crepitate with prehistoric reminiscences that can never surge up into the full light of consciousness. As the murmur of the ocean shell held to the ear, poets tell us, relates the secrets of the deep, so music puts us into *rapport* with the lives of the great cloud of witnesses who constitute our ancestors back and down we know not how far, perhaps to the earliest forms of mammalian or even vertebrate life, or even lower. We remember the phases of the past estate of the race from which we sprang and rehearse, if ever so faintly, its joys, sorrows, victories, defeats, longings, exultations and depressions. The soul becomes a resonance chamber for any and every, however slightly revivable, reminiscence not of a pre-existent state in Plato's sense, but of the experience we inherited from the long line of our predecessors who have bequeathed to us each the quintessential residue of their life history which music puts into our possession. Thus, by a sympathetic appreciation of music the soul revisits the dim racial past, communes with the countless generations gone before, participates again in their fate, pastimes and fortunes, so that in a sense they awaken and rehearse their story in our souls.

But music is not only recessional, but processional. It is inspired with the ennobling push-up toward the superman that is to be. Thus we expand the narrow limits of our own individuality toward the dimensions of the race and the past and future. This interpretation of musical feeling is not sentiment, but is now a science and evolution, or more specifically, it is genetic psychology. The golden age of musical appreciation is the decade of adolescence, say from fourteen to twenty-four, when the soul needs and responds quickest to all the vastating influence which is great and beneficent beyond anything in literature or any other art.

Thus I urge that the greatest of all the functions of college music is to acquaint not only special but general students with a wide range of the best music, to insure not only acquaintance with, but infection by the great masterpieces of all lands and ages. In many colleges, students can hear but pitifully little good music, and in all I believe that the function of listening and the detailed acquaintance that can come only by

repetition should be a much greater function than it now is. The *Aeolian*, the *Cæcelian* and *Pianola* should not be despised and should be vastly more utilized in every school of music. These mechanical players are admirably adapted for the analysis of musical structures, for the study of style, movements, composition and the vast and rapidly growing body of music now playable from paper rolls is a Godsend to every one interested in music, whether lay or professional. These enable the student to widen the horizon of his knowledge, cultivate taste, discrimination, intelligence, and thus enhance his appreciation of the performance of great artists, orchestras and choruses. Many colleges advertise in their catalogues the number of scores in their musical library. They should no less prize and announce the number of players and the repertory of music provided for each. That a growing use, both in class and personal study will be made of these inventions, and that all their great pedagogic value will be utilized to the uttermost sooner or later, there can be no shadow of doubt.

IV. Again, I plead for a richer and better course in the history of music from its beginning on to the present. It is a wonderful and magnificent story, beginning with the crude incessantly repeated rhythmic phrase on to homophonic melody, moving about independently of the key-tone like the old tragic chorus, the intonations of the church, and the Italian declamatory recitative. The polyphony of the tenth and subsequent centuries wove independent melodies together, assigning little value to harmony as such. The evolution of the major scale from the old Ionic and of the minor out of the other five antique scales, the development of the progress from madrigal to opera, in tragic chorus to oratorio, the evolution of pure instrumentation, are all fascinating chapters. In such a historic course, which should be thorough and prolonged, all should centre about actual music, and the standard productions of the great masters should be incessantly repeated and the story of their lives known. Such illustrations are now practical in these days of mechanical players. This historical course should not only be broad and thorough, but the point of departure for every other department. Growth responds to growth and genius provokes response and appeals profoundly to the faculties of youth, for progress is inspiration to the young. Every great composer of the past should have his week or month of daily work, and every great era its full term of exclusive study, and everything should be practical, with a rich historic perspective. Thus something or some one will make a special appeal to every student, even those who cannot appreciate the latest and most evolved styles and writers.

V. The first accessory to musical education should be

mythology, especially the great mythopoeic themes and cycles that have made so many of the great dramas and epics of the world's literature, and which constitute the grand ethnic Bibles of races. The traditional material which has vitality enough to survive for centuries and millenia by oral transmission and without the aid of print, this should be the constant study of every candidate for a musical career or degree. Wagner has only suggested to the world the possibilities of musical inspiration that lie in this field. He revealed and revived the Germany of pre-Christian centuries, the legends of the youth of the world, the heroes that loom up from the dim past, the great man of earth, its prophets,—the story of the Golden Fleece, of Orestes, Agamemnon, Prometheus, Iphigenia, Electra, Ajax, Æneas and Dido, Siegfried, Brunhilde, Parsifal, Arthur, Beowulf, illusions that centre about a Golden Age, about national redeemers—material that historians reject but that folk-loreists and students of the origins of literature reveal. These are what the musician ought to know who wants to be a prophet and apostle of the folk-soul and make its creations live again. He should know and feel the most characteristic and dramatic situations and find in these the source of his inspiration setting the grandest editions of the race to music before attempting its purer forms. Thus, when it comes to composition, the novice should not forget that the individual repeats the history of the race and first essay some simple melodies to sweeten and enforce old moving folk poems, for these ancient mythic themes speak to the heart of love, piety, heroism, and it is in the interpretation of these that creativeness is most favored. Let the young composer, then, first essay songs richly set in gesture, posture, pantomime and declamatory action, for out of this music arose, for tone and tune once only reinforced words and meanings. Thus, I urge that infection with much of this legendary myth material should always be prescribed, and that the department of literature represented by the old epic, and the great stories of ancient and modern drama should be the first outside course insisted upon for the young musician, long before acoustics of tone and even before the French, Italian and German languages, which, of course, every graduate of a musical course should know.

VI. One very pertinent point is the effect of music upon the nervous poise and control of those who love it. The very neurons may be musically famished or overfed, may be tense and overwrought with incessant occupation with tedious and familiar elements or thrilled and exhilarated by great compositions, old or new. Between all these extremes there lies always a normal optimum which every musician should find and live

as near to as possible, equidistant from every kind of excess or defect. Music that calms should thus offset that which excites; that which rests should relieve us from that which fatigues. Nearly all musicians have here a unique problem with their own nervous system which only they can solve, but which must be solved as seriously as one seeks salvation. When we meet broken down musicians in nervine hospitals and asylums, this problem has passed beyond their own power to solve alone, but there was a time when nearly all could probably have saved themselves by proper insight and regimen. I am convinced that it is not music itself, but the fact that the kind of music most habitual is a misfit which is chiefly responsible for the neurotic and neurasthenic states into which musicians, especially lady teachers of it, sometimes fall, and that music has a great as yet unexploited power to heal its own wounds. In proof of this there are clinical records that could be cited. Of course we have yet much to learn of the sanitizing and insani-fying effects of music, but the fact already stands out that the highly unstable age of youth is most of all sympathetic to both these influences. Again, even purely instrumental music not only has hygienic, but moral quality and influence, and this, although not definable, is easily detectable. It stimulates the highest as well as the lowest powers. It may evoke morbid languishing patheticism that chills the joy of life and zest to insipidity, or it may make the world seem more real and joyous and life more earnest, and endow every experience with enhanced worth. The moods which it commands constitute, after all, its deepest and most lasting value or harm, and especially to the plastic and susceptible stage of student life. Only those who have systematically collected confidential youthful confessions of how music brightens and exhilarates or depresses and dismalizes life can realize its usually but little suspected potency over the soul in its struggles up to full maturity, and it is chiefly this that had the theme assigned me permitted that I would have preferred to spend my time in trying to bring home to the better knowledge of college professors of music, who have doubtless all felt, but probably forgotten, as we do most of those very deep, but essentially transient and lapsible experiences of the seething age of the later teens and early twenties.

VII. Finally, music gives us confidence in, and respect for, human nature. One reason why we enjoy a great work of musical art is that we realize that it was produced more or less spontaneously out of the depths of the soul of a genius, and hence we feel that his soul is sound to the core, and since the power to appreciate is a small degree of precisely the same kind of psychic energy that creates, we feel that we, too, are sane

and healthful in the depths of our being. Helmholtz is right that the art connoisseur abhors chiefly the signs of conscious and deliberate purpose to produce this or that result by this or that means, and wants instead purely instinctive irresistible spontaneity. The composer must sing as the bird sings, because he cannot help it. Music is thus a message to the ordinary and more superficial conscious and self-conscious life from the profounder regions of the unconscious and instinctive substrata of the human nature which constitutes nine-tenths of life—a message which says "all down here is beautiful, harmonious, and there is overflowing superfluity of vitality." This is the voice of the race saying to the individual "You may be sore bestead, weak, vacillating, ignorant, in doubt, but, if your bark sinks, it is to a largess, and there are everlasting arms beneath in your own soul." It is the heart out of which are the issues of life, irrigating, refreshing, informing, reinforcing the dusty, moiling intellect. Hence it follows that there may be too much and too incessant analysis, criticism and self-consciousness in our academic curricula. We can no more create musical genius here than in other fields. All greatness is more born than made, but more easily than in other fields we can destroy the buds of genius by superfetation of precept, mere erudition and theory. Musical appreciation evokes musical creativeness and it is music itself, much of it and often, that inspires and not the discussion and technique that teachers tend to lapse toward almost in direct proportion to their inability to create or even to execute. As in all other branches, here there are teachers of music who are musically sterile and exhausted, and is it not they who are more often the methodasters prone to magnify pet devices? It is at any rate when theory is predominant that music tends to become manufactured and made by rule, perhaps correct, but contentless and dead, with no message or gospel from the over-soul to us.

Thus, in a day when psychologists are realizing with one accord that the feelings are far vaster than the intellect and will and are more important for health and sanity, it is clear that you more than any other class are charged with the custody and responsibility of the hygiene of the emotional life. Do you sufficiently realize that music may enfeeble, corrupt, seduce, degrade, let loose the worst things in the soul, that it may bring neurasthenia, loss of control, neurotic instability, pollute the very springs of life, as well degrade taste to tawdriness and puerility, while, on the other hand, good music may almost create virtue and tune the heart to all that is good, beautiful and true, bring poise, courage, enthusiasm, joy of life, tone up weakness and cadence the soul

to religion and morals? Just as there is a literature so bad that one had far better go through life illiterate than to read, so there is music so corrupting and neurotic that the densest ignorance of this great art is better than knowledge and acquaintance with it. This moral and hygienic quality of music is the theme on which I would have preferred to spend my time, but I will only say in closing that it is a fact now as it was in the days of Plato who would banish the Lydian and Ionian musicians retaining only the Doric and Phrygian, that precisely this distinction between moral and immoral music is perceived just in proportion as an age is endowed with true musical gifts. Lack of these ethical and educative characteristics is our predominant national musical weakness, for the chief of all problems in this field is the effect of music upon the morals and the nerves.

## PORtUGUESE EDUCATIONAL HISTORY: THE BEGINNINGS OF PRIMARY POPULAR EDUCATION.

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Portugal, whose single university at Coimbra is one of the oldest in Europe, is neither without its great men of the past nor lacking to-day in educational reformers able to appreciate the results of modern science and investigation. The history of education in Portugal is, however, little known to the English-speaking world, in spite of the close political ties which have from time to time existed (and still exist) between that country and Great Britain. The long connection of Brazil with Portugal and the fact that some of the educational experiments were first tried in the colonies make the subject interesting to the people of the New World.

Within the last few years works by Portuguese writers have appeared covering almost every aspect of educational history. F. Adolfo Coelho, Professor of Comparative Philology, and a folklorist of world-wide reputation, is the author of the following essays: *O ensino primario superior* in the *Revista d'Educação e Ensino* for 1892 (also Reprint, pp. 27); *Para a historia da instrução popular* in the same periodical (pp. 49-73, 97-121, 193-224) for 1895; *Ensino industrial e commercial* (pp. 48), report to the educational section of the Sociedade de Geographia de Lisboa in 1898; *Le Cours Supérieur de Lettres* (Paris-Lisbonne, 1900, pp. 96); *A pedagogia do povo português* in *Portugalia*, the anthropological journal, published at Oporto, for 1901-1902.

Bernardino Machado, Professor of Anthropology at Coimbra, who was in 1893 Minister of Works in the Portuguese Cabinet, a man of science taking part in the political life of his country, and, as one of his books shows, a devotee of child study, has published the following educational works: *A industria* (1898), *O ensino* (1898), *O ensino primario e secundario* (1899), *O ensino profissional* (1900), *A agricultura* (1900), *Notas d'um pae as creanças* (1900, 2a. ed., 1904), *Conferencias politicas* (1904) *A Universidade de Coimbra* (1905). Professor Machado is the acknowledged head of the Republican party in Portugal and a notable example of the "scholar in politics."

Professor Coelho's memoir on *Le Cours Supérieur de Lettres*

was published by the Portuguese Commission of the Paris Exposition of 1900, under whose auspices appeared also official Reports on *Ensino primario* (2 vols. pp. 276, 148), *Ensino secundario* (pp. 236), *Ensino artistico* (pp. 128) of anonymous authorship. Likewise the following: Caetano Pinto's *L'Ecole primaire* (pp. 100), C. A. Marques Leitac's *Les Ecoles industrielles et de dessin de la circonscription du Sud* (pp. 115), Cincinnato da Costa e D. Luiz de Castro's *L'Enseignement supérieur de l'Agriculture en Portugal* (pp. 352), Dr. J. M. Rodriguez's *L'Instruction secondaire en Portugal* (pp. 16), E. Castro Rodriguez's *Méthodes d'enseignement dans les écoles primaires de Portugal* (pp. 150), F. F. Dias Costa's *L'Ecole de l'Armée* and *L'Institut Industriel et Commercial de Lisbonne* (pp. 168), J. A. Celestino Soares's *L'Ecole Navale de Lisbonne* (pp. 65), Sousa Viterbo's *L'Enseignement des Beaux-Arts en Portugal* (pp. 20), F. da Costa Maya's *Collège Militaire Royal* (pp. 98), Rodolpho Guimarães's *Les Mathématiques en Portugal au XIXe Siècle* (pp. 168).

Of earlier works worth mentioning here are José Silvestre Ribeiro's *Historia dos estabelecimentos literarios e científicos* (Lisboa, 1871), D. A. da Costa's *Historia da Instrução popular em Portugal* (Lisboa, 1871), Ferreira do Amaral Cirne's *Resumo da historia da Pedagogia* (Porto, 1881), etc.

In Portugal primary popular education could exist only after the national language began to assert itself in documents and literature. The rise of poetry in the end of the twelfth century, under the influence of Provençal, and the development of prose in the next two centuries, together with the growing importance of the people in the fifteenth century, made possible the first primary school some time before 1439. In the city of Evora then dwelt Esteves Anes, the first known Portuguese schoolmaster,—although tradition would have it that "schools" existed as early as 1375, or even before (Coelho considers this unwarrantable). Lisbon, as documents of 1506 indicate, had private primary schools (for teaching reading and writing) at or before the beginning of the sixteenth century. In 1551 there were in Lisbon 34 teachers of reading and 7 of grammar. At the same time the children of nobles and well-to-do burgesses were taught at home. The development of popular primary education is coincident with efforts to instruct the natives in the colonies. Coelho points out that in 1493 Martim Afonso taught some Congo negroes to read and write, while in 1520 two teachers were sent out to reside with the king of Angola. A regulation of 1529, given to Estevão da Gama, bids him take special care to have the children of the natives taught reading and writing. The "schools" of Cochin are mentioned by Afonso d'Albuquerque in his letter of April 1, 1512, to Don Manuel.

The first attempt to organize pedagogically primary popular education was made by João de Barros, the historian, whose *Cartinha* and *Dialogo em louvor da lingua portuguesa* were published in 1540. In his time, free popular education had begun but the teachers were incompetent, miserably paid, and not infrequently almost, if not quite, social outcasts. They chiefly taught the reading of manuscripts, a curious persistence of mediaeval tradition, and the MSS. used were contracts, processes, cartulary documents, etc. Coelho informs us that even in his childhood reading manuscript was still taught by means of similar documents,—the generic name was *sentenças*. Charges of heterodoxy impeded, in the sixteenth century, the growth of free popular education. Lisbon, in 1595, was concerned over the reports that the heretics in certain parts of the country had begun to teach their doctrines in the boys' schools. In the sixteenth century, as a result of Italian influence, Portugal had its learned women, and those who "read Latin," doctors, etc. But some sort of popular instruction also existed. By the middle of the sixteenth century there were in Lisbon 65 women who taught girls to wash and 2 women teachers of reading for girls. By 1619 the number of the first sort had increased to 94. To obtain authority to teach washing was by no means easy, as the the minutes of the municipal chamber of Lisbon show in the case of Maria de Sequeira in 1612, who taught sewing and washing contrary to a regulation of the city.

Shortly after the approval of the order of the Jesuits by Pope Paul III, in 1540, they were introduced into Portugal by Dom João III, and, by the end of a quarter century, they had colleges and schools all over the country,—Lisbon, Coimbra, Evora, Porto, Braga, etc. In Portugal, as elsewhere in Europe, the Jesuits aimed chiefly at procuring recruits for their own ranks from influential families,—for the common people catechism and preaching were enough. As to the schools for reading and writing they contented themselves with influencing them rather than establishing new ones. In the colonies (Brazil in particular) the padres gave elementary instruction to the children of the natives and the colonists. In 1549, in the Captaincy of S. Vicente the Jesuit Seminary taught, beside religion and morals, Portuguese, reading, writing, and, to a few advanced pupils, Latin. At Bahia, in 1552, there was a seminary for Indian girls, and after that several others like it were established in various parts of Brazil. In 1554 Padre José Anchieta opened at Piratininga the second grammar school (the first was at Bahia) in Brazil. In Pernambuco, towards the end of the sixteenth century schools for the Indians and negroes existed, where religion, reading, writing, etc., were taught. In India St. Francis Xavier and his companions were interested in popu-

lar education only on the doctrinal side. Subsequent documents indicate the existence of schools whose teachers were not always churchmen. Thus an edict of Viceroy Alvor, in 1684, issued to aid in abolishing the use of the aboriginal languages, orders the priests and schoolmasters to teach the boys religion in the Portuguese tongue.

The end of the seventeenth century saw the idea of popular education begin to take root, if we may judge from documentary evidence. By 1619 there were in Lisbon "schoolmasters who taught boys to read and write, 60; fencing teachers, 6; dancing teachers, 7; music teachers, 70. The number of music teachers is accounted for by the tendencies of the age, which was extremely musical. But not until the first half of the eighteenth century were the signs visible of the revolution consummated by the Marquis of Pombal (1699-1782), the greatest of Portuguese statesmen, who, after subjugating the great nobles and their allies, the Jesuits (these were banished), abolished slavery, reformed and codified the laws, reorganized the army, and sought to establish a system of elementary schools (some of his reforms, however, suffered during the reaction under Maria I, who was much subject to clerical influence).

The great advocate of popular education in the eighteenth century was Verney, who was really the first to argue for its general institution. He was also strongly in favor of the education of women. Like Barros, he desired the teaching of the elements of the Portuguese language to precede that of Latin. Rebeiro Sanches, the famous physician, whose *Cartas sobre a Educação da Mocidade* was published in 1760, opposing the views expressed in Verney's *Verdadeiro metodo de estudar para ser util a República e a Igreja* (1747) was an energetic opponent of general popular education. Martinho de Mondonça de Pina e Proença, another of the three great educational writers of the eighteenth century (his *Apontamentos para a educação de hum menino nobre* appeared in 1734), had in view only the instruction of the privileged classes and the nobles and paid no attention to popular education. Rebeiro Sanches, however, argued ably for an improved system of education for the classes who did not live by manual labor. He is to be remembered also as an opponent of corporal punishment. Part of his ideas were put into practice by de Farvalho, minister of José I, to whom was written his "Letters on the Education of Youth," a work which paved the way for some of the reforms of de Pombal.

It is a curious fact that in the eighteenth, as in the sixteenth century, the first movements in this direction related to the Indians of Brazil. A decree of the de Pombal administration, issued August 17, 1758, confirmed the establishment in each

village of the Indians of Maranhão and Para, of a primary school for girls and one for boys, in which should be taught religion, reading, writing and arithmetic. The girls were to be taught, in addition, the labors and duties peculiar to their sex. Thus was established a system of education, freed from, even antagonistic to, Jesuit control. Between 1758 and 1770 other steps forward were taken. By a decree of July 6, 1759, was established a general director of studies, who appointed commissioners to represent him. The duties of the director and commissioners were to take part in examinations, inquire into books, assist in the election of teachers, etc. In 1771 the office of director general was abolished and the primary schools and all matters relating to them passed under the jurisdiction of the "Real Mesa Censoria," created in 1768.

A decree of September 30, 1770, conceded two reforms in primary education, advocated by Barros 230 years before, the teaching of Portuguese before Latin, and the substitution of printed texts for manuscripts in the teaching of reading. The reading in school of "litigious documents and *sentenças*" was especially forbidden. Next came the famous law of November 6, 1772, which established in Portugal and her colonies primary and secondary schools and prescribed for them a curriculum. The ideas of Ribeiro Sanches were followed in recognizing "diversos destinos" and a natural "designaldade." Hence, four categories of individuals were distinguished: 1. Rural laborers and artisans, for whom the catechism sufficed. 2. Those for whom reading, writing and arithmetic were enough. 3. Those for whom the teaching of Latin was proper. 4. The small number who would pursue their studies in the various academic faculties. The subjects to be taught in the primary schools were: reading, writing ("making good letters"), general rules of spelling (Portuguese), essentials of syntax of Portuguese, four "operations" of arithmetic, catechism, rules of society (*civildade*) in a brief compend. The schools were to be visited every fourth month by visitors appointed by the Mesa Censoria, who were to make such inquiries and such reports as they saw fit. The visitors were to be always different, their appointments secret, and the days of their visitations unannounced. Private teachers had to be qualified by examination and approval of the Mesa Censoria,—the penalty for a second offence in the way of unauthorized teaching was a fine and five years in Angola. Previously (in 1765) the municipal chamber of Lisbon had prohibited the opening of any school for teaching reading, writing and arithmetic without a licence. The law of 1772 established a "subsídio literario," drawn from taxes on wines and strong liquors, which was to be applied to paying the salaries of teachers of reading, writing, grammar, or of any other teachers of boys.

By the terms of this law there were distributed, according to population, in Portugal itself, 430 teachers of primary schools; in the "Isles," 15; in the Colonies, 24,—a total of 479. Besides these the law of 1773 added 47 more making the total number for Portugal and the "Isles" 502, the number for the colonies remaining as before. Secondary education was provided for by the establishment of 358 teachers of languages, rhetoric and philosophy. Of these Portugal had: Latin, 205; Greek, 31; rhetoric, 39; philosophy, 28,—total 303. The "Isles": Latin, 10; Greek, 4; rhetoric, 7; philosophy, 4,—total 25. The Colonies: Latin, 21, Greek, 3; rhetoric, 3; philosophy, 3,—total 30.

Before one could be a teacher he had to pass an examination at Lisbon before the president of the Mesa Censoria, or before a committee of two examiners appointed by him, at Coimbra, Oporto or Evora, the only three places outside the capital, where such examinations could be held. In the colonies, before a member of the Mesa and two examiners appointed by the president.

Thus were laid the foundations of popular education in Portugal.

## LITERATURE.

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*Sex Equality: A Solution of the Woman Problem*, by EMMET DENS-MORE, M. D. Funk and Wagnalls Co., New York, 1907. pp. 390.

In the preface the author says: "It is the aim of this work to investigate, from the standpoint of science, woman's true place in nature as compared with man's; to point out those traits and characteristics in which men are superior, and again those in which women are superior; and to trace the causes of those differences."

Admitting that women are as a class now inferior to men in stature, strength and health, the author raises the question of how these differences originated, and adopts Darwin's hypothesis that sexual differences have been caused by selection of the males in their contests for the females, and their struggle for food and defense of their families. These differences, once originated, were cumulative, both because they continued to favor the individuals who possessed them, and because inheritance of such qualities runs along the line of sex. In the same way, woman's disabilities continued to increase, the daughters inheriting more of the mother's acquired characteristics than of the father's. Still further, sex itself is secondary to life and reproduction, depending, according to Hertwig and Geddes and Thompson, not upon the differences in the germ plasm, but upon external conditions of food, warmth, etc., which we do not yet fully understand. Geddes and Thompson contend that in higher animals there is an essential maleness and femaleness, but the author differs from them here and quotes various experiments upon animals in which the sex was varied by variations in nourishment. He concludes that sex characters originated in the environment and have accumulated through heredity and unfavorable conditions for women until the present status has been reached.

But if sex characteristics have been thus acquired, new ones can also be acquired in a similar manner. Men and women are indefinitely modifiable in both directions, and it is easy to see how the present differences in sense and muscular activity, breathing, and habits of thought arose from the conditions under which the two sexes have lived. To make woman man's physical and mental equal, it is only necessary that she should be given the same freedom and opportunities as he. Even in the generation or two of freedom that she has had, we see great improvement in such things as her physical condition, and when time enough has elapsed for the improvements acquired by the mothers to pass down cumulatively to the daughters, we shall see a real equality between men and women. Even with all her disabilities, there are numerous examples of famous women, which the author gives at considerable length, but such cases have been and will for a considerable time continue to be rare exceptions. Women can escape the past only slowly.

Some of the potent forces in aiding them to overcome their disabilities are co-education, suffrage, and entrance into independent earning of a living. The author looks forward to a time when all married women shall continue to be economically independent, arguing that this will promote early marriages because it will enable the income to be doubled at once. He also believes that by the time this is a general

condition, the earth will be so completely populated that no married couple will be expected to have more than two children at most, just enough to replace them when they die, and, as at the same time longevity will be on an average 120 years, the bearing of two children will be a handicap not worth mentioning for any woman. Day nurseries will also be so generally established that all mothers will send their infants to them, and presumably nurses or bottles will be provided, too, though he does not mention this. Such care, in his opinion, will be as superior to the mother's as schools are to home training.

The crux of the argument seems to rest upon the assumption that in order to become "equal" to men women must be relieved of the bearing and rearing of children as far as possible. There may be some heavenly or Utopian land where this can be done and the race still continue to flourish. But when all the available statistics show that the birth rate of all the Anglo-Saxon races is decreasing so rapidly that their days are even now numbered unless the tendency is reversed, arguments resting upon this assumption give little practical assistance to the people of to-day. If we are going to die out in the course of a few generations, the question of equality or otherwise will in any event not press upon us long.

The questions that the educated woman of to-day faces are whether she can raise a dozen or so children and also continue professional life and work in philanthropic or religious or other lines; or if she cannot raise a dozen children or possibly not even one, why she cannot, and what she is to do about it, or whether she wants to do anything.

*Superstition and Education*, by FLETCHER BASCOM DRESSLER. University of California Publications. University Press, Berkeley, July 15, 1907, Vol. V, No. 1. pp. 1-239.

The material for this monograph was gathered directly from the minds of young people during their professional preparation for the work of teaching. Each was unexpectedly asked to write out, without communication, all the superstitions they knew, each slip to bear but one, with the writer's honest expression or belief or non-belief in it. He was requested to say that he had either no belief, or belief, or partial belief in it. It should be noted that this study is confined to the superstitions of children. These are classified under the captions of salt, bread and butter, tea and coffee, plants and fruits, fire, lightning, rainbow, moon, stars, babies, birds, especially owls, peacocks and chickens, cats, dogs, cows, sheep, swine, horses, rabbits, rats, frogs, toads, fish, crickets, spiders, snakes, lizards, turtles, other animals and insects, chairs, tables, clocks, mirrors, spoons, knives and forks, pointed instruments, especially pins and hat pins, combs, umbrellas, candles, matches, brooms, sweeping, dish rags and handkerchiefs, garden tools, ladders, horseshoes, hay, days of the week, New Year's, Ground hog day, April fool day, May day, Easter, Halloween, Christmas, birthday, numbers, counting and numbers, laughing, singing, crying, starting on a journey and turning back, speaking at the same time, in at one door out at another, washing and wiping together, walking on opposite sides of a post, stepping on cracks, sneezing, making a rhyme, boasting, crossing hands, sitting on a table, through a window, stumbling and falling, an itching palm, hand, eye, nose or lip, an ear itching, burning or ringing, foot itching, miscellaneous body signs, warts, mole, birth mark, sty, right and left foot, dress and clothing in general, neck, charms, strings and ribbons, shoes, precious stones, amulets and charms, wearing clothing wrong side out, rings, money, wishing, first time, wish-bones, death and funerals, dreams, spiritisms, weddings, initials. These very outlines suggest the richness and rankness of the superstitions considered and

are well calculated to raise the question in the mind of any reader whether education or civilization has any tendency to reduce superstitions. It would perhaps be difficult to find among any single savage race such an immense array of outgrown beliefs. The value of this study seems to us to rank very high indeed.

*Public Document, No. 2. Seventieth Annual Report of the Board of Education together with the Seventieth Report of the Secretary of the Board, 1905-06. Wright & Potter Printing Company, State Printers, Boston, 1907. pp. 360 + 226.*

We have read the seventieth report of the Secretary of the Board only to learn that nothing of much importance has occurred. There are allusions to the old days of Horace Mann which show that his soul, if not still marching on, is still in evidence. We are told that "though teaching is not all good, much of it is excellent," that Massachusetts is the only State where high school opportunities are offered to the young people of every town, and where all teachers are under professional supervision. The old is contrasted with the new. We are told that teachers are now beginning to look at children and to realize that they are not alike and to make training flexible and adaptive, that a most significant phase, viz., "self-realization has been introduced into educational discussion." This phrase is older than Froebel. Data are given about salaries, increase, registration, medical inspection, institutes, high school reimbursements, etc. We cannot see how it can pay any progressive educator to read this report while those of some of the agents are better. Some of the appendices are better yet, but the report, as a whole, is an essentially clerical affair. If the title of secretary of the board is ever changed, as long as it remains of this quality, it should be to clerk, not superintendent.

*Ninth Annual Report of the City Superintendents of Schools for the Year Ending July 31, 1907. Department of Education, City of New York, 1908. pp. 663.*

This ponderous report is noticeable among other things for the pages which Superintendent Maxwell devotes to the claim made by the New York teachers for equal pay for equal work. With a curious affectation of fundamentals the superintendent goes back to Herbert Spencer's Sociology for a few general statements of the differences between men and women, ignoring the fact that since Spencer wrote this topic has become one of burning interest, and that great progress has been made in its study, which would furnish him with far better references if he but knew them. After laying down other important principles and stating that schools must pay higher salaries if they are to obtain the best available teachers, although there is no prospect, of this, he recommends that as soon as money is available the initial salary of women teachers in New York be raised from \$600 to \$720 per annum. He also thinks that the women principals should receive the same pay as men principals, as soon as money is available, "because it is quite as difficult to obtain women principals of the requisite scholastic and professional attainments and executive ability as it is to obtain men principals."

*Linguistic Development and Education, by M. V. O'SHEA. The Macmillan Company, New York, 1907. pp. 347.*

This is distinctly the author's best book. He has attempted to summarize what has been done by various authors on the linguistic development of children from the first cry to learning a foreign language. The chapter on pre-linguistic expression is brief but sufficient

for practical purposes. The same may be said of those upon the early reactions to conventional language and parts of speech in early linguistic activity. The later chapters are: inflection, agreement and word order, development of meaning for verbal symbols, acquisition of word ideas in graphic and oral reading, the development of meaning, of oral efficiency, of composition and of acquiring a foreign tongue. The author appears to have made diligent use of the English literature upon the subject but has singularly neglected the recent foreign studies in his field; even those named in his comprehensive bibliography do not seem to have been utilized in the text. The most conspicuous shortcoming, perhaps, is that Wundt's comprehensive volumes are not even mentioned, although they abound in discussions of precisely the principles which the author discusses.

*Report of the Commissioner of Education for the Year Ending June 30, 1905.* Volume 2. Government Printing Office, Washington, 1907. pp. 1400.

We observe with great interest that the new secretary is attempting to catch up with Father Time and bring his report to date. This ends June 30, 1905, and there is at least another year or year and a half to be gained. The reduction of the appropriation has compelled the Bureau to also reduce the size of its annual report to about one-half. This causes cutting out much of the more or less extraneous matter. In this, nevertheless, there are interesting monographs on the Moseley Commission, on education in France, on the education of business men in the United States and in Germany, and an account is given of the international congress for the reproduction of manuscripts held in August, 1905, two months after the report closed. Attention is given to education in Alaska, Porto Rico, the Philippines, and a number of interesting matters are described in Chapter II, which is devoted to current topics.

*Report of the Commissioner of Education for the Year Ending June 30, 1906.* Volume I. Government Printing Office, Washington, 1907. pp. 643.

We are glad to receive the first volume of the Report of the Commissioner of Education for 1906, showing that the Bureau really intends to catch up. The present volume contains reports on education in Great Britain and France; the new Prussian school law; progress in Italy; foreign universities; public education in India, the Philippines and Cuba; the training of nurses; education in Alaska; educational periodicals; directory; statistics of State school system; universities, colleges, technical, professional, agricultural and mechanical schools.

*State of New York Third Annual Report of the Education Department.* For the year ending July 31, 1906. Transmitted to the Legislature January 25, 1907. Albany Education Department, Albany, 1907. pp. 694.

Every reader of this report will thank the educational department for the very interesting graphic charts it contains, enabling one to see at a glance the actual status and the history of the more important material aspects of education of all grades. Color devices show how expenditure is distributed, how salaries of men, women, town, city and state are apportioned, and how they have been in the past, and the growth of value of buildings, enrollments of teachers, the grades of license, students in training schools, certificates issued, enrollment and number of graduates of normal schools, the work of Arbor Day, financial and architectural aspects, the progress of high schools, the

apportionment of academic and library foundations, salaries of assistants, etc.

*Addresses and Proceedings of the National Education Association, Los Angeles, Cal.* Published by the Association, Winona, Minn., 1907. pp. 1102.

The 45th annual convention of the N. E. A., held at Los Angeles, July 8-12, 1907, has just published its report in a volume of 1102 pages. The general sessions are occupied by very general topics such as the relations of the school to the peace movement, democracy, the Indians, Mexico, economic relations, defectives, libraries, woman's organizations. A larger and larger portion of the real work of the institution is done in the sections which are growing in number and, on the whole, in interest. There is a most wholesome tendency in some departments to favor papers that really make contributions to educational knowledge, but it must be confessed that a great many of the papers are made up to a great extent of well meaning platitudes. Certainly every one engaged in teaching can find here valuable hints, directions and suggestions, and probably there is no publication anywhere near so representative of the actual intelligence of American teachers as this volume and the meetings which it reports.

*Index by Authors, Titles and Subjects of the Publications of the National Education Association for its First Fifty Years, 1857-1906.* Compiled by Martha Furber Nelson. Published by the Association, Winona, Minn., 1907. pp. 211.

This is a work of great value in itself and at least doubles the value of the Proceedings of the N. E. A. as a whole. Both topics and authors are put in one index. The most superficial glance reveals the immense volume of matter and the scope of topics treated in these fifty years and was a fitting memorial. While the great majority of these papers are more or less ephemeral, there are a few excellent things that will be of interest for many years. Some of the important addresses of Horace Mann were contained in the early records. Fortunately, no break is made in the record when the association changed its name in 1871.

*National Education Association Fiftieth Anniversary Volume, 1857-6. Published by the Association, Winona, Minn.* pp. 949.

*Agricultural Education, including Nature Study and School Gardens,* by JAMES RALPH JEWELL. Washington Government Printing Office, 1907. Department of the Interior, Bureau of Education, Bulletin No. 2, 1907. pp. 368.

The author prepared this valuable memoir as a thesis for the Doctor's degree in Clark University. He has made some minor revisions of it at the suggestion of the head of the Bureau of Education, so that now, as it stands, it is the best and latest world survey of the whole topic. The writer divides his material according to grades. (1) nature study, (2) school gardens, (3) agricultural colleges with a concluding section on the practical advantages of agricultural education. Under each of these heads the author has made a very wide international study and describes in succinct form the work done in nearly all the countries of the world for each of his grades. It is really a model monograph of the kind that attempts to sum up the present situation.

*The Continuation School in the United States,* by ARTHUR J. JONES. Washington Government Printing Office, 1907. Department of

**the Interior Bureau of Education, Bulletin No. 1, 1907.** Whole No. 367. pp. 157.

After treating statistics of school attendance and withdrawal and the agencies for supplementary education in other countries, the writer takes up the different types of continuation school, evening, of which he makes seven classes, Y. M. C. A., correspondence, special schools, schools for apprentices and employees. Another chapter is devoted to the kind and amount of instruction given in the continuation schools and their place and purpose, while a good digest concludes his work.

**Progress of Education in Italy,** by WILL S. MONROE. Advance sheets of the Report of the Commissioner of Education for 1906. Chapter IV, Government Printing Office, Washington, 1907. pp. 73-90.

Starting from the Milan International Exposition in 1906, the author traces recent progress in the kindergarten, elementary school, normal school, secondary education, university, training of defectives, etc., and concludes with a brief account of the congress itself.

**The Auxiliary Schools of Germany,** by B. MAENNAL. Six lectures, translated by Fletcher Bascom Dresslar. Department of Interior, Bureau of Education, Bulletin No. 3, 1907. Whole No. 376. Government Printing Office, Washington, 1907. pp. 137.

The writer first gives a historical sketch of the beginnings at Halle of auxiliary schools for feebly endowed children and the spread of the movement. The reasons for establishing such institutions are set forth in a brief but urgent way. Then follow chapters upon the admission procedure, the parents, and the whole environment of these subnormal children, health conditions, characterization, building, daily programme, curriculum, methods of teaching and discipline, preparations for confirmation, teachers, trainers and the principal and their pedagogic significance.

**Suggestion in Education,** by M. W. KEATINGE. Adam and Charles Black, London, 1907. pp. 202.

The writer discusses hypnotic suggestion, suggestion in the waking state, its experimental study, the process itself, its relations to imitation, to character, method, etc., meets the objection that education ought to be creative, gives a number of practical applications and the sanctions. The main idea of the book seems to be that besides the positive teaching which is followed up by an examination, there should be plenty of hints and intimations which are left for the mind to work on spontaneously, if not unconsciously. This view is wrought out in rather tedious detail and apparently with not very full knowledge of the best literature upon the subject. A whole chapter is devoted to Binet's Suggestibility printed in 1900. The book is interesting and suggestive, but it seems to the present reviewer disappointing when we consider what might have been done in this field.

**Early Withdrawal from School.** Address delivered before the Philadelphia Teachers' Association. Part I, The Responsibility of the Home, by PATTERSON DU BOIS. Philadelphia, 1908. pp. 16.

The writer collects a very suggestive report of the pupils above fourteen who left the Philadelphia public schools during February and March, 1907. In the elementary schools there were 1,059 between fourteen and fifteen who left; 274 from fifteen to sixteen, etc. The chief cause was to go to work, but a very close second was lack of interest. Ill health and other causes were very much less. In the high schools, 247 withdrew during these two months and here ill health

led with 71 cases and the necessity of going to work and lack of interest came later.

*The Elimination of Pupils from the School*, by EDWARD L. THORNDIKE. Department of the Interior, Bureau of Education, Bulletin No. 4, 1907. Whole No. 379. Government Printing Office, Washington, 1908. pp. 63.

This is a very careful statistical study and shows that at least one-fourth of all white children who enter school stay only just long enough to read simple English, write the most common words and perform the four operations for integers without serious error. One-fifth of these children entering city schools stay only till the fifth grade. Over one-half have never had a man teacher. Less than one-tenth who enter graduate from the high school. Only one-third graduate from the elementary school of seven grades or more. Only about one-half have any teaching of any consequence concerning the history of their own country. In our city high schools for 100 girls entering, there are 75 boys, but in the last year there are 60 per cent. more girls than boys. Compared with other countries, we succeed, nevertheless, well in retaining children in school. There is an enormous variability among cities in the amount of elimination. At least it is over 40 per cent. One main cause of elimination is lack of interest in the work demanded by the present course of study.

*The Writing of English*, by P. J. HARTOG. With the assistance of Mrs. Amy H. Landou. The Clarendon Press, Oxford, 1907. pp. 164.

This book may be summed up as follows: The English boy cannot write and is not taught to write English. The French boy can write French because he is taught how to write; the historical reason for the foregoing facts: how the French boy is, and how the English boy may be, taught to write. The incapacity of the English boy the author designates as "scandalous." He does not believe English children lack capacity for writing their English, nor does he hold that the French method should be transferred bodily with no modifications. It should be also said that he writes from personal knowledge of French as well as of English schools. The first chapter sketches the history of teaching the mother tongue in France; the second the methods of teaching French composition; the third discusses the writing of English; and the fifth literary training and superficiality. He believes examination papers as now demanded impair English. The author, with assistance, has certainly written a sprightly work, and the appendix contains very many practical examples and suggestions.

*The Economic History of the United States*, by ERNEST LUDLOW BOGART. Longmans, Green & Co., New York, 1907. pp. 522.

The writer does not attempt to rehearse the events common to political and constitutional histories of this country, but rather to emphasize the points neglected by them. The keynote of our history, from whatever standpoint written, is the effort of a virile people to develop the natural resources of a new continent and there to realize their ideals. Our economic history is the history of the achievement of a people working under free competition, untrammeled by custom, tradition or political limitations, and whose changing condition of environment constantly compel new adaptations and promoted ingenuity and energy. The history of this economic struggle is no less interesting than the political history, which latter cannot be understood without it. Before the beginning of the last century, the strug-

gle for commercial and economic independence was well on and then came industrial evolution and the westward movement, and, finally, from 1880 to the present time, economic integration and industrial organization. The book comes down to the present time and is illustrated by several scores of cuts and by 26 maps. On the whole, it is a valuable addition to the educational texts.

*The Fonetic Primer, Offering the Universal Alphabet and the Science of Spelling.* By CHARLES A. STOREY. Isaac H. Blanchard Co., New York, 1907. pp. 60.

This book shows an immense amount of study and is designed to be a kind of spelling dictionary. It is based on 5,500 words of one syllable. It professes to contain the universal alphabet and the rules and principles of the science of spelling, and is presented to the world as a substitute for all others, so that there should eventually be but one alphabet and one method of spelling. Not only does it contain all necessary rules for spelling, but they are as exact as those of arithmetic. The above 5,500 words are all there are in the English language of one syllable and the old spelling is given beside them. These words are divided into sixteen classes, under which all these words are grouped. The principle of division is first, all those words that consist of a single vowel; then all those with a vowel preceded by a consonant; then those with a vowel following; then those with both a preceding and a succeeding consonant; the same order for two consonants before, after, and both before and after and either before or after; and finally the same with three. It is certainly a very suggestive and interesting work quite apart from the more questionable postulate of phonetic spelling.

*Einführung in der akademische Pädagogik*, von HANS SCHMIDKUNZ. Buchhandlung des Waisenhauses, Halle a. S., 1907. pp. 206.

This volume is somewhat unique and looks like a thesis. Had it fulfilled all that its title suggests, it would indeed have met a long felt want and the author certainly deserves credit for his efforts, but his method is largely that of indirection. He devotes first a section to rather abstract talk about pedagogy in general, its ideas, the relations of theory and practice, the constants and variables, and then treats the relation of academic to other pedagogy and has something to say of industrial education. In the third section he characterizes the university and other institutions of its rank, discusses academic freedom, personal devotion to work, and only when the first third of the volume is done and he speaks briefly of personal specialization is there anything that honestly seems to fit the title. In the next section he criticises in a very abstract way the value of tradition, its influence, its methods, its abuses. Pre-and post-academic pedagogy are distinguished, and we are given some very platitudinous remarks about the necessity of proceeding from the easy to the hard, the simple to the complex, the near to the far. Later we are told something of the value of the lecture method, of practice, of study at home, of the value of encyclopædic work and of hodegetics. A very arid section on the sciences most closely related to pedagogy follows, especially philosophy and psychology and, in the final chapter, we are given many Herbartian commonplaces concerning former steps, repetition, etc.

*The Organized Theatre*, by ALLEN DAVENPORT. Miscellaneous pamphlet series, No. 2, November, 1907. Boston. pp. 16.

The writer here sketches a plan by which a theatre might be the property of university by investment, endowment and legacy. Each

theatre might be conducted under its own rules and presided over by a learned body of directors selected by university trustees who should have all authority in matters of appointment, arbitration, dismissal, etc., contingent on the offices of playwright, manager and actor, who are not to be interfered with except for misdemeanor. The musicians, artists, electricians and all the auxiliary corps are also to be exactly organized. This scheme is worked out with some detail with reference to the history of the theatre, and its purpose is to elevate it and enhance its normal educative influence.

*The Psychology and Pedagogy of Reading, with a Review of the History of Reading and Writing and of Methods, Texts and Hygiene in Reading.* By EDMUND BURKE HURVY. The Macmillan Company, New York, 1908. pp. 469.

This book is to a great extent an expansion of a thesis for the Doctor's Degree at Clark University. The author has gone into the subject very thoroughly, and not only from the experimental standpoint, but from the pedagogical as well. It is in a sense a book that fills a want. The first part deals with the psychology of reading, including the work of the eye, the extent of matter perceived during a pause, experimental study upon visual perception, and the nature of its process in reading, the inner speech of reading and the mental and physical characteristics of speech, the functions of the inner speech in the perception of what is read, the interpretation of what is read, and the nature of meaning and the rate of reading. Part second gives the history of reading and of reading methods, the beginnings and interpretations of gestures and pictures, the evolution of the alphabet, of the printed page, and the history of reading methods and texts. The third part treats of the pedagogy of reading, present day methods and texts or primers, the views of educators, learning to read at home and in school, reading as a discipline and as training in the effective use of books, what children and adolescents should read. The last part deals with the hygiene of reading, especially fatigue and hygienic requirements in printing books and papers. The author appends certain conclusions concerning the future of reading and printing and the elimination of waste. On the whole, no one who has followed the literature on this subject can doubt that we have here the best and most comprehensive text yet written in any language to give a general view of the subject.

*The Making of a Teacher, a contribution to some phases of the problem of religious education.* By MARTIN C. BRUMBAUGH. The Sunday School Times Company, Philadelphia, 1905. pp. 351.

Among the subjects of the twenty-eight chapters are how knowledge reaches the soul, how education is secured, facts about memory, feeling, imagination, ideals, symbols, judgment, different kinds of knowledge, the laws of teaching, how to train up a child, soul activity through words and questions, the course of study, recitation, Jesus the ideal teacher, His educational principles and methods, the scope of religious education, etc. These chapters are not connected and seem for the most part to have been written for special purposes and occasions. There is almost no sign of scholarship or erudition in the book, that is, there are no titles, foot-notes or references, but these papers are confidentially addressed to teachers with a practical end in view.

*Moral Training in the Public Schools.* The California Prize Essays, by CHARLES EDWARD RUGH, T. P. STEVENSON, EDWIN DILLER STARBUCK, FRANK CRAMER, GEORGE E. MYERS. Ginn & Co., Boston, 1907, pp. 203.

A Californian, who withholds his name, lately offered a prize of \$500 for the best essay on moral training in the public schools, and a second prize of \$300 for the next best essay, and named a committee to make the award. They assigned the first prize to a California principal and the second to a Philadelphia clergyman. The essays which stood next in rank were those of Professor Starbuck, of the University of Iowa, of Frank Cramer, of California, and Principal George E. Myers, of Washington, who presented his Doctor's thesis at Clark University. These are all printed in this volume, and although there is much repetition, the book as a whole is a valuable contribution to the subject now coming to occupy the attention of American educators as never before.

*Education by Plays and Games*, by GEORGE ELLSWORTH JOHNSON.  
Ginn & Company, Boston, 1907. pp. 234.

This work is dedicated to Dr. G. Stanley Hall, who writes a brief introduction. It is a revision and a great enlargement of a work begun at Clark University and published in the *Pedagogical Seminary* in 1894. Since then the writer has been in intimate and almost constant touch with children, and he has won a wide and well merited reputation for the successful educational new departures he has made. There are two parts; one on the theory, history and place of play in education, which discusses its meaning, the periods of childhood and their relations to a course of plays and games, while part second contains a suggestive course of plays and games divided into five periods, viz., from birth to three years of age, from four to six, from seven to nine, from ten to twelve and from thirteen to fifteen. A classified bibliography upon the subject adds materially to the value of the book. There are illustrations on nearly every page, most of which are new. Altogether the book is unique in educational literature and may be called a *vade mecum* for every teacher who is interested in any phase of this subject.

*Specimens of Prose Composition*. Edited with introduction and notes by Charles Read Nutter, Frank Wilson Cheney Hersey and Chester Noyes Greenough. Ginn & Co., Boston, 1907. pp. 478.

The editors compiled these specimens because they did not find exactly what they wanted anywhere else, and they have tested them by use in their own class rooms. Its features are that it illustrates all kinds of writing in one volume, includes good compositions by students themselves, makes a classification more explicit and suggestive than elsewhere exists, and shows that the principles of composition must not be applied inflexibly to all kinds of writing, but undergo great modifications. The selections are short so that analysis of entire sections can be made in a single recitation. The chief topics are exposition, with a dozen models, then biographical accounts and portraits; models of criticism; of argument; description of landscapes; exteriors and interiors; technical elements, like dominant tone; point of view; color, sound; order; elements in combination and finally, narration of facts, history, incidents, adventure, fiction, etc. At the end of each section are printed a few students' themes, illustrative, we fancy, of the beneficent effects of this method of teaching.

*A Syllabus for the History of Western Europe with references and review questions.* (Based on Robinson's "Introduction to the History of Western Europe.") By NORMAN MACLAUREN TRENHOLME. Ginn & Company, Boston, 1907. Part I. The Middle Ages, pp. 80. Part II. The Modern Age, pp. 94.

This syllabus represents a discussion method. The students are

responsible for the prescribed work in the text and also for at least one selection from a collateral reference given in the syllabus. Here the topics are outlined with references. This scheme seems to us as excellent as it is new.

*Lessons in Practical Hygiene, for use in schools*, by ALICE RAVEN-HILL. With preface by Professor M. E. Sadler. E. J. Arnold & Son, Leeds and Glasgow, 1907. pp. 744.

The first part is introductory and describes life in general and the characteristics of air and water; the second is devoted to the human body, the nerves, osseous, muscular and nervous system, the senses, etc.; the third discusses food, its preparation; the fourth, personal hygiene; and the fifth, the dwelling.

*Graded City Arithmetic*. Beginners number primer, one to twenty. Book I in eight book series. The Macmillan Company, New York, 1907. pp. 78.

This is the first of a series of eight graded city arithmetics designed to present in the briefest form everything in elementary school mathematics. This minimum is taught by the most approved devices and arranged with reference to the needs and interests of the children first, and secondly according to logical principles. The problems are useful. In this first volume everything is concrete and there are plenty of illustrations of many kinds, and if there is any criticism, it is perhaps that the illustrations are somewhat too copious. Great use is made of pegs, dots, squares, etc., and there are abundant things to count.

*A Primer*, by CATHARINE T. BRYCE and FRANK E. SPAULDING. With illustrations by Margaret Ely Webb. (The Aldine Readers.) Newson & Company, New York, 1907. pp. 141.

The features of this primer are that the subject matter is within the range of the experience and fancy of children at five and six. It is full of action and dramatization. As to vocabulary, less than one hundred entirely different words are used, but each is repeated many times. The rhymes, of which there are over a dozen, are designed to be thoroughly memorized and contain nearly all the words in the book. The pictures are colored, though each one has but one color with different shadings.

*A First Reader*, by FRANK E. SPAULDING. With illustrations by Margaret Ely Webb. (The Aldine Readers.) Newson & Company, New York, 1906. pp. 135.

The first reader also aims to present live matter and to teach to read independently. Its material is grouped under captions: out-of-doors; in summer time; with flowers and stars; Christmas; garden and meadow. The same system of copious and tinted illustrations is used. There are many of them and in the vocabulary each new word is listed where it first appears.

*Learning to Read, a Manual for Teachers*. By FRANK E. SPAULDING and CATHARINE T. BRYCE. With illustrations by Margaret Ely Webb. Newson & Company, New York, 1907. pp. 141.

In the teachers' manual Dr. Spaulding explains the method and use of books and charts and other material, amplifies his principles of rhythm and presents a comprehensive phonic chart.

*American History, for Use in Secondary Schools*. By ROSCOE LEWIS ASHLEY. The MacMillan Company, New York, 1907. pp. 557 + 47.

This is the work of an experienced teacher and makes a very attractive appearance. It comes down almost to the present time, containing accounts of the St. Louis Exposition in 1904. Few teachers have so clearly seen the importance of making a vital contact with the present.

*Gage's Principles of Physics.* Revised by Arthur W. Goodspeed. Ginn & Co., Boston, 1907. pp. 547.

This is a revision of a book published first in 1895, since which time physics has made rapid strides. Parts have, therefore, had to be rewritten with new sections, and all is made to correspond to modern requirements for admission to college. There are few formulæ but 402 cuts.

*A School for Mothers,* by EVELYN B. BUNTING, DORA E. L. BUNTING, ANNIE E. BARNES and BLANCHE GARDINER. Horace Marshall & Son, London, 1907. pp. 86.

In connection with St. Pancras and suggested, perhaps, by a very effective organization at Ghent, Belgium, a volunteer body of ladies and gentlemen have given stated instruction to those who are and are about to become mothers, where all are welcome. Later a restaurant, after the fashion of that of Madame Coullet in Paris, with kitchens, was established, and there are not only lectures given on nursing to nursing mothers, but dietaries, cook books, examinations, with various representative menus and dinners free or at cost with plenty of infant consultations. Moreover, a Provident Maternity Club has been established where lessons for mothers are given every Wednesday, and there are detailed syllabi for all they need to know. This work has developed remarkably since it was opened in June, 1907, and has had already, as the school in Ghent, a very marked effect in reducing the death rate.

*Les Enfants anormaux, guide pour l'admission des enfants anormaux dans les classes de perfectionnement.* Par ALFRED BINET and TH. SUMIN. Armand Colin, Paris, 1905. pp. 211.

These writers first discuss the chief psychological traits of abnormal children, their distribution by age, mixed and unstable types, those due to retardation and to instability. They then pass to the pedagogic examination of abnormals and of schools; tell how conferences should be best conducted with parents; what should be the composition of a jury of inquiry; the rôle of instructors, of interpreters, controllers, judges; the method of training; the kind of physical and psychic examination to which such children should be subjected and the value of various tests. The medical examination should include cephalometry, the stigma of degeneration, and all signs of debility, arrest and perversion. In the final chapter present conditions and methods in use at Saltpetriere and Bicêtre are described.

*Die Entwicklung des Interesses des Kindes,* von LADISLAUS NAGY. Zeitschrift für experimentelle Pädagogik. V. Band, Heft 3/4. Otto Nemnich, Leipzig. pp. 198-218.

The writer first gives a rather comprehensive review of the chief results of previous studies on interest; attempts to grade them as sensuous, subjective, objective, permanent and active; and then draws therefrom pedagogic inferences as to how each stage from the sensuous to the logical should be treated.

*What are you doing? Why are you doing it? Why do you do it like that?* By FRANK E. SPAULDING. Printed with additions and

questions. Fanning Printing Co., Newton Upper Falls, Mass., 1907. pp. 46.

This is a superintendent's heart to heart talk with his teachers, masters, and supervisors on marking, formulæ, topical analyses, school machinery, and mass versus individual work, keeping children together, promotions, ideas versus practice, true place of system, bases of agricultural progress, compulsion, the waste of time and effort, how to attack the spelling problem, the value of the child's time, etc. At the close, suggestive questions for recapitulation of the contents of the book cover some pages.

*The Book of the Child: an attempt to set down what is in the mind of children.* By FREDERICK DOUGLAS How. Pitman & Sons, Bath, 1907. pp. 189.

The author's preface begins, "I am rather shy about this little book," and he adds that were it not for some kind friends it would never have seen the light. It is all, as the title indicates, concerning the child, its arrival, memory, imagination, religion, imitation, pleasures, pathos, with final chapters on wayside children and children's meetings. It is wholesome and rather attractive, but contains very little new material.

*The Higher Education of the Young; its social, domestic and religious aspects.* By S. H. SADLER. 2nd ed. George Routledge & Sons, London, 1907. pp. 276.

The writer here republishes an original little brochure which was out of print twenty years ago, which he has revised. It has no chapter headings but has a few quaint illustrations, many quotations, is especially poetic and shows a great deal of reading of the historical literature of education.

*Die soziale Hygiene, ihre Methoden, Aufgaben und Ziele.* Von ADOLF GOTTSSTEIN. Zeitschrift für soziale Medizin. 2 Band, 1 & 2 Heft. F. C. W. Vogel, Leipzig, 1907. pp. 72.

The author first discusses the bases of his subject; then methods and statistics, official, medical and applied; anthropometry; further methods of equipment in this department; epidemiology; industrial hygiene and further problems.

*Scholasticism Old and New: an introduction to scholastic philosophy, medieval and modern.* By M. DR WULF. Translated by P. Coffey. Benziger Bros., New York, 1907. pp. 327.

This book is the outgrowth of a pamphlet published in 1899 upon the subject, and it contains very many of the doctrines which form the subject matter of teaching and publication in Catholic colleges. The object of the work, we are told, is to meet and combat false conceptions, and to co-ordinate all notions so as to furnish the reader with some general information on the new scholasticism. The author has merely traced outlines, raised and stated problems without claiming to have noticed all the points of view the subject matter admits of. It is designed as an invitation to the reader to undertake a deeper and more personal study of modern scholastic philosophy, which is a very different thing in some respects from that of the schoolmen. The author has sought to compare, point by point, the individuals of the past with those of the present. The old scholasticism is most extensive, but the new most perfected in its details. The first part, therefore, after an introduction and definition of the term, of the schools of which it was the daughter and of scholastic methods, proceeds to show its relations with theology, mediæval science and the problem of

universal ideas. A long chapter is devoted to doctrinal definitions as, for instance, of metaphysics, theodicy, psychology, moral philosophy and logic, while a third chapter traces in outline the decline of scholasticism. The second part, devoted to modern scholasticism, takes up the same topics, namely, metaphysics, theodicy, psychology, general psychology, aesthetics, ethics, logic and other branches and compares the new with the old view-point. The fact of the new scholasticism and the conclusion of the matter may show that both Kant and positivism are wrong. In an appendix, the plan of philosophic instruction at Louvain and the influence of that school, its text-books and publications, are given.

*The National Council of Congregational Churches of the United States.* Addresses, reports, statements of benevolent societies, etc., of the thirteenth triennial session at Cleveland, Ohio, October 8-17, 1907. Published by order of the National Council, Fort Hill Press, Boston, 1907. pp. 1446.

This meeting listened to sixteen different addresses by various people, including the relation of the church to public education, theological seminaries, the modern minister—his method and his training, the church and industrial problems, the church as a champion of social justice, as a witness to civic righteousness, church neglect, Christian endeavor and Evangelism, church and the social crisis.

*The Inward Light*, by H. FIELDING HALL. The Macmillan Company, New York, 1908. pp. 228.

This volume is saturated with the wisdom of the East, which is set forth in an intuitive way by a writer who knows Buddhism from a long residence in the Burma, and whose great work, "The Soul of a People," constitutes the best recommendation of Buddhism to the West that it has ever had. Among the titles of the 22 chapters are: the secret of the East; truth and its image; the evolution of the soul; one time, one truth; David, fate and free will; the way; the great gift of charity; man's faith and woman's; the perfect fellowship; the understanding dream, and, finally, all truth is one. These, however, give but little indication of the real content of the book, which, indeed, is impossible to describe. It has much, though not all, of the charm of his first great work. It abounds in apophyses and incidents that are charged with higher meanings, parables, etc. Indeed it is almost a devotional work. No one could read it through at a sitting, and the chapters are of very uneven merit. There is almost a narrative running through it, but there is a kind of mysticism that pervades it, almost suggesting Maeterlinck in some places. The fascination of the author with his theme is itself an inspiration, and although he seems to be growing more and more a mystic, it must be that the charm of both his style and his sentiments will do much to carry along with him very many who are not used to this type of thought.

*Delecta Biblica*. Compiled from the Vulgate edition of the Old Testament and arranged for the use of beginners in Latin. By a SISTER OF NOTRE DAME. Longmans, Green & Co., New York, 1907. pp. 79.

This is a unique and interesting book for the Protestant reader. It is designed as an introduction to Latin and fifty-six stories are condensed from the creation of our first parents to Belshazzar's feast. The study is essentially grammatical, and in the first lessons illustrations are given of the kind of questions to be used and the answers to be expected. Everything, however, from the very outset must be in Latin.

*The Way of God in Marriage.* A series of essays upon Gospel and scientific purity. By MRS. MARY E. TEATS. Physical Culture Publishing Company, New Jersey, 1906. pp. 307.

This book, dedicated to the author's daughters and to young people in general, treats of the Bible aspect of the sex question, Christian and Gospel ethics, science of life, marriage, duties and privileges, requisites for true parenthood, prenatal culture, rights of the unborn, our national sin, race suicide, the day star is dawning, the old home of the old century, the new home of the new century, hopeful signs, the rainbow of promise.

*Die litterarische Charakter der neutestamentlichen Schriften*, von C. F. GEORG HEINRICI. Dürr, Leipzig, 1908. pp. 127.

The writer's standpoint is that of his earlier work on the primitive Christian transmission and the New Testament. After a history of the problem, he takes up Judaism, the original conditions of New Testament authorship, its forms and its means of expression, such as style, comparison, deification, confession, liturgics, imagery, personification, etc.

*Buddhist and Christian Gospels;* now first compared from the originals. By ALBERT J. EDMUNDS. 4th ed. Innes & Sons, Philadelphia, 1908. pp. 162.

These parallels begin with infant legends, then pass to initiation, to ethics, including some sixty different points, then the eschatology or the closing scenes of Jesus' life are compared with those of the East, and, finally, thirteen uncanonical parallels are appended.

*A Modern Utopia*, by H. G. WELLS. Charles Scribner's Sons, New York, 1907. pp. 393.

The author describes a sudden transportation of himself and a nameless botanist to another planet very similar to this, speaks of the momentum of customs and their observance and discusses freedom, Utopian economics, the voice of nature, failure of women in a modern Utopia, other impressions, my Utopian self, the Samurai race in Utopia, etc. There are seven vivid mystic illustrations. The author has saturated his mind with most socialistic writings from Plato down to Morris's "News from Nowhere," and soliloquizes, often for pages, in an aimless and really unintelligible way and then suddenly says very striking and original things. For instance, he proposes that the State should endow all women fit to be good mothers, examine them and pay them for every healthful child so that if they have six or eight they should be relatively rich and independent of their husbands. He would have not only women who desire but also men come into this arrangement; would prevent the enormous death rate of young children symbolized by a cut of a row of mothers mourning over little graves; would prevent the marriage of noble women with wealthy fools, symbolized by a cut of a wedding scene of a lady leading a cloven footed ass to the altar; would not allow women to be burdens upon men, symbolized by a toiler carrying a much bedizened and bejeweled woman upon his back, and postulates a new order of individuality of those who live according to the highest principles of honor, and wish above all things to transmit life effectively to generations to come. Why must so brilliant a mind indulge in such fantastic grimaces of literary expression? If the thought in his book were presented clearly and succinctly in fifty or a hundred pages it would surely be read by very many who cannot afford the time to gather its scattered thoughts as they are at present dispersed through his pages, or who are repelled from the content by the form.

*Through Widest Africa*, by A. HENRY SAVAGE LANDOR. Charles Scribner's Sons, New York, 1907. 2 vols.

During twelve months this explorer penetrated Africa from the east, traversing its longest diameter about ten degrees north latitude with a small party from Djibuti to Cape Verde. He enriches his volumes with 160 half-tone reproductions of photographs, and dedicates his work to King Victor Emmanuel of Italy. The work is full of interesting points of view, some of them new. For a long distance the excursion skirted the boundaries between the French and Belgian Congo Region, and it is significant to note that this traveller was everywhere impressed with the superior humanity and effective organization of the Belgians as compared with the French administration. He declares that the rubber tax of the Belgians was not excessive, and that the natives were treated with more humanity by them than by the French.

*Enquête scientifique sur les végétariens de Bruxelles: leur résistance à la fatigue étudiée à l'ergographe la dureté de leurs réactions nerveuses considérations énergétiques et sociales*, par MME. J. IOTRYO & MME. VARIA KIPLANA. Henri Lamertin, Bruxelles, 1907. pp. 77.

These writers have studied the resistance to fatigue as measured on the ergograph and as affected by vegetarian diet. They find that a vegetable diet very greatly defers fatigue and that the decline is indefinitely prolonged as compared with curves constructed by flesh eaters. They, therefore, advocate more attention to be paid in cooking schools to the preparation of vegetable foods, that vegetarian restaurants be established, and societies to propagate this doctrine, and that all these be done in the interest of both public and private health and efficiency.

*Der Experimentalator*, von ERICH LEHNFELD. A. Hartleben, Leipzig, no date. pp. 368.

This is a very interesting and somewhat novel boy's book. It has over 350 illustrations and touches nearly all the sciences. Its principal idea is that it is designed to teach boys to do things.

*Principes de linguistique psychologique: essai de synthèse*. Par JAC VAN GINNEKEN. Otto Harrassowitz, Leipzig, 1907. pp. 552.

The first book is devoted to representations of words and of things; the second to intelligence and its adhesion or assent and the grammatical categories; the third to the sentiment of appreciation including that of connection and qualification of intensity, etc. The last book considers will and automatism, their fundamental laws, their relations with each other, the general principles of historic phonetics, of dynamic semasiology and the general feeling of the order of words.

*Principles of Breeding: a Treatise on Thremmatology*. By E. DAVENPORT. With an appendix by H. L. Rietz. Ginn & Co., Boston, 1907. pp. 727. (Country Life Education Series.)

This is a very comprehensive work that seems to be meant to be also exhaustive. The first part deals with variations; the second with its causes; the third with transmission and only when we reach the fourth do we have practical problems such as selection, systems of breeding for plants and animals, the determination of sex, etc. While the author has given an admirable compend of the theories of heredity, he has made little attempt to add essentially to them in this work.

*The Fungus Growing Ants of North America*, by WILLIAM MORTON WHEELER. Extracted from Bulletin of the American Museum of Natural History Vol. XXIII, Article XXXI. pp. 669-807. New York, Sept. 30, 1907.

This work is devoted very largely to a description of the various species to most of which, however, is appended a succinct account of their habits. It is a comprehensive and invaluable work by the man in this country who perhaps has done most in this field.

*Psychology of the Nervous System*, by PAUL CARUS. An extract from his larger work "The Soul of Man." Open Court Publishing Company, Chicago, 1907. pp. 85-218.

This is a popular book, with very copious illustrations, compiled from various sources. The writer describes first the nervous system of worms, radiates and articulates; then the connecting link between vertebrates and invertebrates; then the development of the brain, spinal cord, medulla, cerebral hemispheres, cortex, concluding with a section on pure physiology of the brain.

*An Introduction to the Mechanics of the Inner Ear*, by MAX MEYER. The University of Missouri Studies. Science Series, ed. by W. G. Brown. Vol. II, No. 1. Published by the University of Missouri, December, 1907. pp. 139.

As a result of the careful study of the structure of the ear, the writer is able to draw certain inferences concerning the types of audition of various forms among the lower animals which cannot fail to be of the greatest interest to psychologists.

*The Correction of Featural Imperfections*, by CHARLES C. MILLER. Published by the author, Chicago, 1907. pp. 134.

This work treats of infiltration, the prevention of outstanding ears, of excessively large ones, involving some reconstruction of the ear; vibrous tumors, fold backs and wrinkles about the eyes; reduction of hump nose and tip tilted one, the bulbous type; how to treat stenosis of the nose; the excision of stars, tattoos or paraffin injections; the inversion of everted lips; macrocheila; eradication of the naso-labial line; of a hardness of mouth expression; improving appearance of the brow; curing double chin; outstanding nasal alae; how to form a dimple, etc.

*American Communities and Co-operative Colonies*, by WILLIAM ALFRED HINDS. 2nd rev. ed. Charles H. Kerr & Co., Chicago, 1908. pp. 608.

This story begins with the commencement of the early colonies at Jamestown and Plymouth and Moravian Settlements; then considers the Ephrata Community 175 years old, that of Snow Hill, of Jemima Wilkinson, the Shakers, the Harmonists, Zoarists, Owenites, the Perfectionists, Hopedales, Fourieristics, Brook Farm, North-American Phalanx, Fruitlands, Skaneateles, the Amana Community, those of Bethel-Aurora, the Icarians, Second Adventists, Nazians, Brueggerhofists, Brotherhood of the New Life, the Woman's Commonwealth, Shalam, Topobolampo, Koreshans, Altruists, the Ruskinites, the Fair-hope Association, the Roycrofters, the Straightedges, the House of David, the Temple home, the Helicon home, fellowship farm associations, etc. This work is a second revision, but it is of the greatest value to all those interested in the subject.

*The Raid on Prosperity*, by JAMES ROSCOE DAY. D. Appleton & Co., New York, 1908. pp. 352.

The twenty chapters that constitute this book are certainly written in a very vigorous and confident way. The new age; the citizen; the rights of speech; reactionaries; stretched constitution; corporations and their rights; the standard oil in three chapters; exact justice; swollen fortunes; charitable trusts; tainted money; labor unions; working men; the remedy; men for the times: — are all discussed in a way which is calculated to leave the uninformed with no suspicion that there is another side than that presented by the author. He declares that he pronounced judgment on most of these topics twenty years ago, that he is oppressed by an increasing appreciation of our country's magnitude and by the immensity of our times, that he speaks by no man's favor, is restrained by no man's frown, tells us much of his own history in an incidental way, uses many quotations from old and standard authors. Although the writer of this note has dipped into the book quite extensively, he does not feel competent to pronounce a judgment upon many of the very complex problems here so confidently discussed.

*John Bull*, by CECIL REDDIE. Second edition. George Allen, London, 1901. pp. 76.

In this work Dr. Reddie undertakes to give the chief characteristics of John Bull, his present condition, that is, to summarize the constituent elements physical, æsthetic, moral, intellectual, in the British child and to find the growth momentum of each, what are his traits, ideals, how produced, what are their consequences. He discusses English society, foreigners' views of British characteristics, and as a result draws certain conclusions concerning the tertiary education needed.

*Zur Psychologie der primitiven Kunst. Ein Vortrag von MAX VERWORN.* Abdruck aus der Naturwissenschaftlichen Zeitschrift. VI. Bd., der ganzer. Reihe XXII, Bd. Nr. 44, 1907. Gustav Fischer, Jena, 1908. pp. 47.

The art of the old paleolithic cave drawings, some of which have been the wonder and admiration of the world, was characterized by the fact that these races were physio-plastic, that is, drew precisely what they saw and as they saw it. The later races that swept over Europe, the long heads from the Southeast who constituted the men of the neolithic age, had developed ideas, thoughts, fancies and images from which they drew, and are therefore designated as ideo-plastic. When such mental products were sufficiently developed to be set forth in drawing they greatly interfered with the exact fidelity of copying objects before the eye so that art became far more fantastic and full of symbols, imaginary beings, etc. This line of art development was so old that every primitive race of man, save one perhaps, the Bushmen, have followed it and are ideo-plastic in their art, and every trace of the old physio-plastic habit has been eliminated even from children who draw human bodies and then draw clothes on them, who draw the wheels of a wagon, for instance, in different perspectives and give their fancy free rein. In this field people copy and this results first in degeneration as can be seen even in experiments with children who copy copies, while others copy theirs so that at half a dozen removes from the original great deterioration is shown, and this copying copies instead of first-hand work is naturally characteristic of ideo-plastic art, so that schools, norms and conventionalities arise.

*The History of Music to the Death of Schubert*, by JOHN K. PAINE. Ginn & Company, Boston, 1907. pp. 314.

This is a summary of the popular lectures which Professor Paine gave at Harvard for many years. The present volume contains so much of these notes as had received the author's final revision. The book is divided into two parts; first, ancient and mediæval music beginning with the Greeks and Romans; and the second treats the origin of dramatic music, opera and oratorio for different countries and with chapters on different composers ending with Schubert.

*Stories of the Wagner Opera*, by H. A. GUERBER. Dodd, Mead & Co., New York, 1907. pp. 191.

These eleven chapters constitute an admirable introduction to the myths which underlie Wagner's chief operas. They are told in a very simple and effective way with very little allusion to the music, but with brief statements concerning the composer and the circumstances under which he wrought out each of these operas.

*Histoire des Jouets*, by HENRY RENÉ D' ALLEMAGNE. Hachette & Cie, Paris, no date. pp. 316.

This is an elegant quarto very copiously illustrated with a score or two colored plates. The writer praises the simplicity of the toys of antiquity, holds that they have a very high educational value as restoring the influence they seem to have had in the Middle Ages upon religion and life, deprecates foreign made toys and those made of sugar or bread. The first chapter discusses toys of the earliest infancy and devotes special sections to the rattle, windmill, surprise boxes, animals, vehicles, etc. Another chapter gives the history of dolls from the ancient Romans down and another of the most unique chapters is devoted to doll interiors, their houses, chambers, furniture, cradles, etc. Lead soldiers and military equipments, automatons, marionettes, shadowgraphs, magic lanterns, kaleidoscope, phantascope, magnetic and electric toys, balloons, parachute, each have special chapters and the author shows considerable interest in the scientific value of toys.

*Les Jouets*, par LEO CLARETIE. May et Motteoz, Paris, no date. pp. 324.

We have here an interesting and elegant volume with one or more illustrations on every page, some of them colored. The chief topics are on the toys of ancient France and great and little manufactures. Then the toy in prisons and in luxurious homes is discussed. One chapter is given to the toy shop; animate toys and wire toys are discussed and one of the most interesting chapters is given to the relation of the season of year and the toys. Toys play an important part in religion, in education, in science, letters, art, geography, history, life and finally after one interesting chapter on dolls, the work concludes with the philosophy of toys.

*Etudes d'histoire et de psychologie du mysticisme des grands mystiques Chrétiens*, par HENRI DELACROIX. Félix Alcan, Paris, 1908. pp. 470. (Bibliothèque de Philosophie Contemporaine.)

The first chapter is devoted to St. Theresa and the inner life. Then follow others devoted to her development of mystic states, her words and her visions. In the third chapter, Madame Guyon is discussed and especially her apostolic state. Her mysticism is very carefully analyzed. The spiritual masters, St. Francis de Sales and John De La Croix are compared and the relations in which all have stood to the church. Then follows a characterization of Suso mystic experiences, systems and traditions and later comes a discussion of intellectual intuition, its passivity and its systematization are objects of special

inquiry. In an appendix, psychic hallucinations and sense of presence, inner words and fancies, intellectual visions and quietism are treated.

*Greek Lives from Plutarch.* Newly translated by C. E. BYLES. With illustrations and maps. Longmans, Green & Co., New York, 1907. pp. 232.

This is intended to be an English reading book in the schools. The standard translations of Plutarch are not very suitable to this use. Moreover there are very many rambling digressions which mar the directness of the narrative. The most interesting descriptions and anecdotes are retained. Each of the lives here given have, therefore, been much abridged. The translation here made is from Teubner's text and the lives used are that of Plutarch himself, then Theseus, Lycurgus, Aristides, Themistocles, Pericles, Alcibiades, Dion, Demosthenes and Alexander.

*The Negro Races, a Sociological Study.* By JEROME DOWD. The Macmillan Company, New York, 1907. pp. 493.

This volume is submitted as one of a series that the author has in mind which shall constitute a sociological study of mankind from the standpoint of race. Hitherto, writers have constructed theories based upon data selected very promiscuously from diverse ethnic stocks. This would have been well if the various races had lived in the same environment and passed through the same stages, but as they have been successive and not simultaneous, it is wrong. Zone itself makes the identical institutions or even stages impossible. The author therefore first attempts to prove that each race has its own distinctive institutions and special evolution corresponding to its habitat and he also seeks to discover the factors and laws that explain the moral characteristics and institutions of each racial division. The first part of the work deals with the Negritoës including pygmies, bushmen and hottentots; the second with the Negritians and Fellahs discussing the rest of the Soudan life in the zones of the banana, millet, cattle and camel respectively in each of which both economic, family, and political life are considered. There are also certain customs and ceremonials, certain traits of religious and aesthetic life, certain psychological traits due to the environment in each of these zones. The final chapter discusses the solution of the Negro problem in the Soudan. This book certainly strikes a new note or several of them which cannot fail to be very stimulating not only to historians and economists but also to psychologists.

*Myths of the Red Children.* Retold by GILBERT L. WILSON. Illustrated by Frederick N. Wilson. Ginn & Company, Boston, 1907. pp. 154.

Here are eighteen tales collected from perhaps a dozen tribes, well told and each with one or more illustrations true to life. The Supplement contains a number of Indian things that children can make such as stone hatchets, arrows, hunting shirts, moccasins, clay pots, bows, quivers, pipes, etc. It should be stated also that there are a few explanatory notes for each of the tales. Altogether the little volume must be pronounced an interesting and suggestive venture.

*Geschichte der Autobiographie,* von GEORG MISCH. Erster band. Das Altertum. B. G. Teubner, Leipzig, 1907. pp. 472.

The first part is devoted to the development of autobiography in the Hellenic and Attic period and the Roman Era. This is classified in their political life, the analysis of character and the relations to

philosophy and the religious movement. The golden age of autobiography in the close of antiquity is illustrated by church fathers, ending with Augustine.

*The Quaint Comedy of Love, Wooing and Mating. Songs, lyrics, ballads and verses: an English, Scottish and Irish anthology.* Edited by Duncan and August MacDougall. E. P. Dutton & Co., New York, 1907. pp. 348.

This the author regards as the first anthology of the poetic comedy of love. The writer claims to have gone through heaps of antiquarian chaff and to have followed many trails that led to nothing, but he has certainly unearthed a good many interesting and humorous things.

*Country Homes and Gardens at Moderate Cost.* Edited by Charles Francis Osborne. The Johns C. Winston Company, Philadelphia, 1907. pp. 120.

Here are 200 illustrations of plants and photographs of houses and gardens costing from \$800 to \$6,000 with the designs by well known architects and a practical discussion on the building and furnishing of homes by authoritative writers. Although there are many books of this kind published in recent years, this is doubtless on the whole the best.

*Old Paths and Legends of the New England Border,* by KATHARINE M. ABBOTT. G. P. Putnam's Sons, New York, 1907. pp. 408.

This is a really charming attempt to describe a number of typical old towns in New England,—the ancient Saybrook, Norwich, Easthampton, Sag Harbor, Deerfield, Northampton, Pittsfield, and others. There are a number of score of interesting illustrations that enliven the book.

*Life and Labor of the People of India,* by ABDULLAH JUSUF-ALI. John Murray, London, 1907. pp. 360.

The nucleus of this volume was a course of lectures delivered in England in 1905-06 at the Passmore-Edwards Institute. The original six lectures have grown to nine. They are town, village, student, civic and woman's life, the leisure classes, industrial and economic problems, public health, administration and social tendencies. The work has a few interesting illustrations.

*Six Weeks Preparation for Reading Caesar.* Adapted to Allen & Greenough's, Beunett's and Harkness's Grammars. By JAMES MORRIS WHITON. Fifth revised edition with additions by Helen Isabel Whiton. Ginn & Co., Boston, 1907. pp. 105.

*Carmen and Other Stories,* by PROSPER MÉRIMEÉ. Edited with notes and vocabulary by Edward Manley. Ginn & Company, Boston, 1907. pp. 251.

*Saint Genest and Venceslas,* par JEAN ROTROU. Edited with introduction and notes by Thomas Frederick Crane. (International Modern Language Series.) Ginn & Company, Boston, 1907. pp. 433.

*Psycho-physic Investigations with the Galvanometer and Pneumograph in Normal and Insane Individuals,* by FREDERICK PETERSON and C. G. JUNG. Reprinted from "Brain", Part CXVIII, Vol. 30, 1907. John Bale, Sons & Danielsson, London, 1907. pp. 66.

*Manifesto of the Communist Party* by KARL MARX and FREDERICK ENGELS. Authorized English translation. Edited and annotated by Frederick Engels. Charles H. Kerr & Co., Chicago, 1908. pp. 65.

*Weeds and Wild Flowers*, by MOWRY BELL. Richard G. Badger, Boston, 1908. pp. 119.

*Goethes Wetzlarer Verwandtschaft*, von ROBERT SOMMER. Mit 8 Abbildungen. Johanna Ambrosius Barth, Leipzig, 1905. pp. 47.

*Legends, Tales and Poems*, by GUSTAVO ADOLFO BECQUER. Edited with introduction and vocabulary by Everett Ward Olmsted. Ginn & Company, Boston, 1907. pp. 288.

*Les plus jolis contes de fées*. For elementary classes in French. Edited with vocabulary by Jules Lazare. Ginn & Company, Boston, 1907. pp. 130. (Modern Language Series.)

*Les prisonniers du Caucase* par ZAVIER DE MAISTRE. Edited with introduction, notes and vocabulary and French and English exercises, by Charles Wesley Robson. Ginn & Company, Boston, 1907. pp. 72. (Modern Language Series.)

*French Song and Verse for Children*. Edited by Helen Terry. With an introduction by P. A. Barnett and illustrations by P. Tempestini. Longmans, New York, 1908. pp. 125.

*Skeletal Remains Suggesting or Attributed to Early Man in North America*, by ALFRED HRDLICKA. Smithsonian Institute, Bureau of American Ethnology, Bulletin 33, Washington, Government Printing Office, 1907. pp. 113.

*Report of the Progress and Condition of the United States National Museum for the Year Ending June 30, 1907*. Smithsonian Institute. U. S. National Museum. Washington, Government Printing Office, 1907. pp. 118.

#### NOTE.

Adolf Harnack, at the 49th Annual Meeting of the German Philologists and Gymnasial Teachers in Basel, September, 1907, created, what is described in the German pedagogical journals, a real consternation, by proposing radical transformation of religious training in secondary education. For the higher gymnasial classes he would completely abolish the critical authoritative methods now in use and in their place establish courses based upon modern critical and historical methods. Only thus can this subject remain. Since, however, there are stages in the development of the pupils in which exclusively authoritative religious instruction has no place, and at the same time the modern critical methods would be premature, Harnack proposes for two years, in the middle of the course, to entirely omit this subject. For the four upper classes he would have a course in which the fourth should study the history of the religion of Israel and the Old Testament, the third the story of Jesus and primitive Christianity, the second should be introduced into Catholicism and early Protestantism, and the first should study the essence of religion and Christianity with special reference to the vital problems of the present. In conformity with this, he would have also courses established at the university to prepare teachers for this work. The speaker insisted that students knew extremely little of the nature of other confessions, and that this was a great defect of culture that must be remedied. The conceptions which Protestant youth hold of Catholicism are almost inconceivably crude. The knowledge of church history must be relied upon to remedy this evil.

# THE PEDAGOGICAL SEMINARY

Founded and Edited by G. STANLEY HALL

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VOL. XV

JUNE, 1908

No. 2

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## THE HYGIENE OF THE NOSE<sup>1</sup>

By WM. H. BURNHAM

The function of the nose is that of the practical hygienist. It warms and moistens and purifies the air we breathe. One gets some idea of the extent of its function in purifying the air by observing the condition of the nostrils after a railroad journey; and investigation shows an enormous number of bacteria intercepted by the mucous membrane of the outer portion of the nostrils. Nasal breathing is an important factor also in the nutrition of the brain.

The sense of smell has, from a hygienic point of view, an important function. It is the health inspector among the senses, because it warns us when we go into an unwholesome environment; and, if we have not too much degenerated, it tests for us the wholesomeness of our food and the purity of the air we breathe. Any defect in the nose that interferes with these functions is a serious menace to the health of the individual.

Certain obvious matters in the hygiene of the nose are important. Care should be taken to prevent young children from putting things into their noses; and nose-bleeding, injuries and the like should be attended to. Dr. Bresgen, the great German authority (2, p. 246), points out that when children are learning to walk they frequently fall upon their faces, causing injuries to the septum of the nose. And again during school life, blows on the nose and falling from trees, walls, or gymnastic apparatus, often cause deviations of the septum. All such in-

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<sup>1</sup>The author is indebted to Dr. A. C. Getchell for important suggestions in the preparation of this paper.

juries are usually neglected, and a narrowing of the nasal passages results, thus lessening the amount of air taken in by nasal breathing.

Occlusion of the nose, of course, largely arrests its functions, causes defects of speech, is liable to cause defects of hearing, and interferes with the nutrition of the brain. The most common causes of occlusion are swelling of the mucous membrane of the nose and naso-pharynx due to colds, deviations of the septum, and the like, and enlargement of the naso-pharyngeal tonsil.

The swelling of the mucous membrane due to a cold is more serious than is usually supposed. With closed or considerably narrowed passages carelessness in speech occurs. The child learning to speak has to contend with enormous difficulties anyway; when the parts involved in speech are in a morbid condition these difficulties become almost insurmountable.

The effect of a cold or catarrh upon the hearing is well known. Dr. Bresgen (2) has pointed out that children often hear quite well part of the time, and then when they do not hear are regarded as inattentive. The most common cause of this is the swelling of the mucous membrane of the nose and naso-pharynx. Since this swelling decreases in dry weather, but on the other hand increases in over-heated rooms, the hearing alternates accordingly. Again, the ability to think and the power of prolonged attention change with this swelling of the mucous membrane. Such children hear best in the first hour, while later they gradually lose their ability until, finally, they stare vacantly into space.

That nasal breathing is an important condition of brain activity has been shown by the experiments of Kafemann (13). Using Kraepelin's method he tested the ability of his subjects to do mental work in adding with normal breathing and with the nostrils artificially closed. The result was decreased ability to work when nasal breathing was inhibited.

Headache in the school Bresgen (2) finds frequently connected with nasal trouble, and he maintains that, when pupils suffer from this the condition of the ears and nose should always be investigated.

#### ADENOIDS

The nose, like every other gateway into the body, offers opportunity for infection; but elaborate means of defence is provided. The first barrier against disease germs is the hair at the opening of the nostrils; the second is the mucous membrane, which intercepts perhaps most of the invading bacteria; and a special outpost for defence is provided perhaps by the naso-pharyngeal tonsil, a bulwark where enormous numbers of

leucocytes in the lymphatic tissue are on guard against pathogenic invaders. Sometimes this becomes too large and occludes the nostrils on the one hand and the Eustachian tubes on the other. Such hypertrophy of the naso-pharyngeal tonsil is usually called an adenoid growth.

Dr. Wm. Meyer (6a and 16), a Danish physician, was the first to distinguish this defect, in 1868, and to use the term adenoid. This was a somewhat epoch-making discovery; for this disorder is found in all parts of the civilized world, and it seems rather strange that it was not discovered before. No specific cause of the disorder has been determined, but many contributing causes have been assigned. To quote Dr. Grayson: (7, p. 231)

"A list of the more prominent includes heredity, age, sex, the strumous and lymphatic diatheses, frequent colds, obstructive nasal affections, the exanthemata, micro-organisms, climatic and social conditions, the latter at times involving insanitary surroundings. Granting, however, that one or several of these are distinctly active as etiological factors in the majority of cases, yet the closest analysis will fail to discover that any one of them is essential to the development of this disease; in other words, we are entirely unable to draw from the wealth of clinical material at our command anything more than general deductions. There is nothing definite or precise in our information concerning the ultimate causes of the pathological process. As a fundamental fact, we know that in early life the epithelial and lymphoid tissue elements are particularly prone to be affected by the catarrhal and hyperplastic processes. Any condition, be it external or internal, that encourages a persistent catarrhal hyperæmia of the upper air passages in the infant or child, such as frequent coryzas or repeated inflammations of the faucial and pharyngeal mucous membrane, or continuous exposure to unfavorable hygienic surroundings, will favor the occurrence of adenoid growths. The greater functional activity of the general lymphatic system and the normally disproportionate development during childhood of the various lymphoid structures throughout the body make them the more liable to pathological alterations as the result of such maleficent influences as those just named."

Adenoids usually develop in the early years and are apparently connected with the greater activity of the lymph in case of the young. In some way, as indicated by experiments on animals, the lymph apparatus in the young and adolescent is more active than in the adult. "This is why," says Dr. Jacobi,<sup>1</sup> "the condition of the lymph glands in the young is of

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<sup>1</sup> Prevention of Tuberculosis in School Children, Teachers' College Record, March, 1908, pp. 16, 17.

such importance. Whenever there is any infection of the mucous membrane the infecting poison is carried off to the next gland where there is a stopping place. That gland will become the seat of irritation or swelling. That is why . . . whenever there is only a slight diarrhoea, no matter from what cause . . . the lymph bodies in the neighborhood will swell. Unless such a diarrhoea is soon stopped, the irritation will continue, congestion, inflammation, swelling of the glands will ensue, and the structure of these neighboring glands will be changed."

This increased activity of the lymph in children in connection perhaps with the frequency of colds and infectious diseases accounts for the fact that this hypertrophy usually occurs before the age of six.

The symptoms are very obvious. In a typical case the child keeps the mouth open, has a dull, sleepy, inquiring look,—in extreme cases looks like an idiot; he speaks through the nose, and the sound is dead. He sleeps with mouth open, snores loudly, starts up and gasps for breath, sometimes has convulsions. Nutrition is often seriously impaired; growth is not normal; the chest is apt to be flat.

Dr. Crockett (5, p. 1029) has given an account of the symptoms more in detail, as follows:

"The facial expression of the child is almost diagnostic, and in large growths, the speech is perfectly characteristic; the upper lip is short, and shows two to four front teeth in the upper jaw; the upper jaw is narrow; the nose is narrow, and the face full under the eyes. On looking into the mouth the hard palate is markedly arched, especially in older children where the growth has not been removed, and where the palate has been allowed to become deformed with the growth of the child; the line of the teeth is often irregular and there is occasionally a more or less perfect double row of teeth. The child is a persistent mouth-breather, and is apt to snore, or breathe hard, in sleeping."

Special symptoms to be observed according to Dr. Guye (16) are the following:

First: Disturbances of breathing. Breathing through the nose is difficult, so the mouth is kept open.

Second: Disturbances of speech. The voice has a nasal sound, since the stopping of the nose hinders clear speech.

Third: Disturbances of hearing on account of the swelling of the Eustachian tubes. In this way buzzing in the ears, deafness, etc., may occur.

Fourth: Disturbances in the functions of the brain resulting in inattention, so called *aprosodia nasalis*, and the like.

Investigation has shown that this is a common disorder

among children. Dr. Crockett (5) thinks that at least 5% or 6% of all school children suffer from it in this latitude.

Kafemann (12), one of the pioneers in this subject, made an extended investigation, testing over 2,000 school children, and found among the boys 7.8%, among the girls 10.6%.

According to the estimate made by Dr. Laaser (14), 10% of the school children in Germany have adenoid growths, and, consequently, among the six million German school children there are six hundred thousand suffering from this disorder. In Leipzig (18, 1902, p. 255) the investigation made by the school physicians showed out of 9,031 children, 23.2% afflicted with adenoids.

In Stockholm specialists are attached to the elementary schools to examine every child (9, p. 19). In 1905 among 3,495 children they found 13.8% with enlarged upper tonsils. In 1906 among 3,907, 12% were found.

Further it is indicated by certain studies that adenoids are still more frequent among the lower classes. Dr. Stangenberg (9, p. 19) found 16% of the children in the elementary schools in Sweden suffering from adenoids, while among the High School children the number was much smaller. "In 1901 Dr. Floderus (9, p. 19) examined some 900 Board-school children, all of seven or eight years of age. In them he found 170, or 18.78%, with an upper tonsil so enlarged that an immediate operation was found advisable; and in another 170, such an enlargement of the tonsil that an operation was desirable; in all then, 340, or some 37%." In Leipzig it was found that there were more cases among the children of the so-called district schools where the poorer classes attended. This was thought to be connected with the scrofulous tendency and the fact that the children were weaker and not as well cared for. In the Bürgerschulen, where the better class attended, there were 18.9% of the children with adenoids; while in the district schools, Bezirksschulen, 25.5% had adenoids (18, 1902, p. 255).

Adenoids seem to occur more frequently among the mentally deficient. Among 114 feeble minded, Halsted (6a) found 20.1% with adenoids. In one school in New York (6) where there was a special class for defectives, a physical examination showed that 137 had adenoids, or enlarged tonsils, or both.

Perhaps until further studies have been made it is not best to attempt to establish other correlations, but several are suggested. It seems to be a defect of civilization. No extended investigations, so far as I am aware, have been made among primitive people; but among the South American Indians apparently adenoids seldom occur. Catlin (3) reports that according to his observation North American Indians always sleep with their mouths closed.

There is some evidence of a correlation between adenoids and tuberculosis, and possibly a correlation between them and the infectious diseases of childhood may be established. It is said that the disorder is more common where sudden climatic changes are frequent, and plenty of other correlations have been suggested.

The varied and far-reaching effects of adenoids have been shown by many studies. Growth of the body and of the skull is affected. With the asymmetry of the skull Ziem finds with experiments on animals that distortions of the spine occur. Development of the teeth, palate, and vocal organs is interfered with, and functional disturbances result.

On the mental side are lack of attention and of memory, and the feeling of constant preoccupation, which makes children incapable of doing normal mental work. Such a child is likely to be tired, dull, and sleepy. There is often irritability, depression, disorderly conduct, etc. "Miss Ivens (11, p. 25) in the study of 841 children finds some evidence of a correlation between deficient mental capacity as indicated by school marks and the habit of mouth-breathing."

That adenoids interfere with the physical growth of children is indicated by the observation of different writers, and there is some experimental evidence to prove this. Kastex and Malherbe measured children before the operation for the removal of adenoids and at different intervals after the operation; in all 35 cases, at intervals of 3, 6, 9, or twelve months, were measured. The general conclusion formed by these authors is that growth in height, weight, and chest girth, for some months after the operation, is three times as great as the mean growth Quetelet gives for height and weight, and which Pagliani gives for chest circumference. There are, however, great individual differences (19, 1894, p. 490.).

Adenoids are one of the chief causes of deafness, because the growth is apt to close the openings of the Eustachian tubes. The tympanum is a delicately adjusted membrane kept in equilibrium by the pressure of the air in the external ear on the one side and that from the Eustachian tube on the other. The closure of the latter disturbs this equilibrium and serious muscular and nutritional changes result followed by disease of the middle ear.

The causal relation between adenoid growths and deafness has been shown by many writers. For example, Frankenberger (19, 1897, p. 291) investigated 159 pupils of a deaf institute in Prague, and he found adenoid growths in case of 94 of these, that is, 59.5%; in 42 cases there were changes in the middle ear, suppuration or the results of it, and 88% of these cases had adenoid growths. Dr. Frankenberger believes

that in some cases where children are supposed to be born deaf, really the deafness is due to adenoid growths.

The mental condition correlated with adenoids has been distinguished as a special form of inattention. Dr. Guye (16), in 1887, gave this the name of *Aprosechia nasalis*. In his paper on this subject, published in 1898, he gives the cause of this inattention as disorder of the nose, namely, adenoid vegetations in the naso-pharynx, or swelling of the mucous membrane of the nose and of the muscular tissue beneath, or irregularities in the structure of the septum which favor the development of this swelling.

The symptoms of *aurosechia*, according to Guye, are three-fold: first, it is difficult for the patient to form an idea of anything new, especially anything abstract, which one wishes to communicate to him. He is stupid. Second, the patient has great difficulty in retaining ideas, suffers from weakness of memory. Third, the patient can only with difficulty turn his thoughts upon a definite subject. This is *aurosechia* in the narrower sense.

The first case reported by Guye is a typical one. A child 7 years old was unable to breathe through the nose. Although he had been a whole year in school, he had learned nothing at all except the first three letters of the alphabet. Guye found the naso-pharynx filled with adenoid growths. These were removed, and a week later the boy knew the whole alphabet by heart.

It is obvious that in cases of *aurosechia nasalis* we have to do with a defect of attention due to a disturbance of brain function. It is not quite clear what the nature of this disturbance is. Some light has been thrown on the subject, though, by the studies of various investigators. First of all, the breathing is directly affected by an adenoid, and often it becomes impossible to breathe through the nose. As the blood pressure is regulated largely by the volume of air breathed, the functions of all physiological and mental processes are disturbed. Especially noteworthy is the blood pressure on the brain. By nose breathing a great amount of venous blood and of the products of metabolism in the brain are carried off. With mouth breathing the well known pressure in the head occurs, due largely, perhaps, to the fact that the return flow of the blood is retarded.

According to Guye (16), however, the disturbance of brain function is especially to be explained by the retarded flow of the lymph from the brain on account of which the waste products are not quickly enough carried off. "By the investigations of Schwalbe, Key, and Pretzius," he says, "it has been shown that the lymph spaces of the brain communicate

with the lymph vessels of the nose, and therefore the intercranial lymph must in part pass the mucous membrane of the nose. If, now, on account of swelling of this mucous membrane the lymph vessels are subjected to more or less pressure, of course the flow of lymph is correspondingly checked and the products of metabolism are retained in the brain, and this affects its function" (16).

It is doubtful whether the lymph has more than a subordinate function in the removal of waste products. This interference with the flow of lymph may have a serious influence, however, on the nutrition of the brain. Dr. Hough (10, p. 137) maintains that the interstitial lymph currents are of fundamental importance in maintaining the proper physical and chemical surroundings of the cell, and anything which favors them becomes an indispensable factor in the healthy working of an organ. The cause of the flow of lymph in the lymphatics are the contractions and relaxation of the circular muscles of the lymphatics, the active force of the lymph formation producing interstitial pressure, the pumping action of the muscular contractions and of changes in the position of parts of the body with regard to one another, as in alternate flexion and extension of the limbs and trunk, and the aspiration of the thorax. As the lymph is carried away, lymph is formed from the blood and the cell. Thus physical exercise is an important factor in the proper nutrition of the cells of the part exercised. And on the other hand anything that interferes with the flow of lymph from an organ is unfavorable to the nutrition of the cells. This is, perhaps, the chief reason why a sedentary occupation is bad.

Again, Guye (16) points out: "With nose breathing the aspirations of the venous blood to the heart is much greater than with the mouth breathing, since in the latter case the respiratory movements are more superficial. Since the patient is obviously forced by such obstructions in part at least to breathe through the mouth, the aspiration of the venous blood from the head is deficient, and since likewise it has been shown that the intra-cerebral lymph is also carried off by the Arachnoidal tissue to the venous sinus, it is clear that on account of the nasal trouble the flow of lymph by this channel also is retarded." That is, the flow of lymph from the brain is checked in two ways by the adenoid: 1st, by the swelling of the mucous membrane of the nose causing pressure; 2d, by deficient aspiration of the venous blood from the head.

Guye (16) found among 152 patients with adenoid growths, 62 with decided *aprosechia*, 32 with slight *aprosechia*, and 58 with none at all. Perhaps there is a correlation between the amount of hypertrophy and the degree of *aprosechia*. But of

course in any individual the other conditions of brain nutrition may be so favorable that *aprosechia* does not result.

Mouth breathing is not always associated with adenoids. Sometimes it is a mere habit which might be broken by suitable training, and this habit of mouth breathing may persist after adenoids have been successfully removed by an operation; but whatever the cause it is injurious. Catlin, although he exaggerates the effects of this habit, is quite right in emphasizing its injurious character. He draws a striking contrast between the tightly closed lips of a crowd of North American Indians and the open mouths of a civilized crowd. The burden of his book is an account of the disastrous effects of the habit of mouth breathing among civilized people, and, in spite of his humorous enthusiasm, the closing sentences of his book contain an important truth:

"The Proverb, as old and unchangeable as their hills, amongst the North American Indians: 'My son, if you would be wise, open first your Eyes, your Ears next, and, last of all, your Mouth, that your words may be words of wisdom, and give no advantage to thine adversary,' might be adopted with good effect in Civilized life; and he who would strictly adhere to it, would be sure to reap its benefits in his waking hours; and would soon find the habit running into his hours of rest, into which he would calmly enter; dismissing the nervous anxieties of the day, as he firmly closed his teeth and his lips, only to be opened after his eyes and his ears, in the morning; and the rest of such sleep would bear him *daily* and *hourly* proof of its value."

"And if I were to endeavor to bequeath to posterity the most important Motto which human language can convey, it should be in three words:—

"Shut—your—mouth.

"In the social transactions of life, this might have its beneficial results, as the most friendly, cautionary advice, or be received as the grossest of insults; but where I would paint and engrave it, in every Nursery, and on every Bed-post in the Universe, its meaning could not be mistaken; and if obeyed, its importance would soon be realized" (3).

The result of an operation is usually very successful. It is rare that serious results follow. Certainly in 99% of adenoid growths, says Dr. Crockett (5), the result of an operation will convert the most skeptical parent. The growth is apt to occur in early life, and it is desirable that it should be removed before the child is ten years of age. The ideal age to get the best results from an operation Dr. Crockett puts between 3 and 5 or 6, as the child's throat, nose, mouth and teeth are thus assured perfect development.

Some writers think that the improvement from an operation for adenoids is chiefly confined to an improvement of speech and hearing. Guye, Dr. Schmid-Monnard, and others (19, 1901, p. 331), however, have noted decided mental improvement;

and it is apparently a matter of common observation that such improvement frequently occurs.

The beneficial results of the removal of adenoids have been notably illustrated in New York City. Dr. Cronin (6) reports that in case of 81 children written consent was obtained from the parents to perform the operation. They were operated upon by three specialists at Mt. Sinai Hospital, June 21, 1906. Six months later 76 of these were re-examined, and without exception they had all been promoted and were all doing well in the advanced grades.

The varied improvements observed are summed up by Dr. Sprague as follows:

"The effect of the operation on the general health is, in nearly every case, very pronounced and in some cases truly marvellous. Nature seems delighted to be rid of this offending material. It seems as though a heavy weight had been removed from the child's body, as though a life that had been in bondage had been set free. The pale, sickly, poorly-nourished children begin to grow in all directions, their bodies show better nourishment, the once flabby flesh becomes firmer, the skin shows a better color, the stupid, vacant facial expression gradually disappears and a more normal physiognomy is established; and in the deformed faces of mouth breathers, if the condition has not existed too long, there is a decided change for the better as soon as nasal breathing is established. In the children under twelve, where the ears have been involved, there is usually a restoration of the hearing function. In some cases, however, after-treatment of the ears is necessary. In the suppurating ears, if there is no diseased bone, the otorrhea ceases in a short time. The whole scene, in fact, is changed; the nervous, irritable, peevish disposition soon fades away and the child seems like a new being. The night scene is a decidedly changed one, the restless tossing about in bed, the snoring and struggling for air, is replaced by peaceful, quiet sleep. All things considered, there is no surgical or medical transaction which will call forth more expressions of gratitude and praise for the physician than this operation when successfully performed" (18, p. 192).

The importance to the teacher of knowing the essential facts in regard to adenoids is obvious. A child suffering from this disorder is liable to be treated unjustly and unwisely on account of his inattention, irritability, or disorderly conduct. Parents are likely to be ignorant of the indications of the trouble. And even when they are not, it is a strange fact that in case of their own children they seem to be often blind to the obvious symptoms.

Dr. Hagelin has shown the importance to the teacher of

modern languages of knowing something about adenoids. At the London Congress of School Hygiene he presented a paper in which he enumerated the various mistakes and defects in articulation likely to occur in such cases. He writes in part as follows:

"As to sounds in general, mistakes or wrong articulations are not limited to the ordinary substitutions of, e.g., 'voiceless' for 'voiced'; of open types of the same vowel instead of close, undiphthongized forms for diphthongized, and *vice versa*. Sufferers from adenoids have those mistakes in common with all learners. One thing, however, is remarkable in them—the difficulty they have in learning tolerably correct articulations, and of keeping them in memory if once acquired. A pupil may have learned and mastered an articulation pretty well; presently he seems never to have heard of it.

"But, also, the most surprising and incomprehensible errors occur. Adenoidal patients even substitute back vowels for front vowels sometimes: fit, fat, foot, are substituted one for another by a pupil of mine in his worst moments. He is about eighteen years of age, and was operated upon quite lately. He still needs correction until these slips of the tongue are remedied. But those blunders are not of the same kind as in other pupils. They recur too regularly, and are to be regarded as symptoms of an incomplete speech and relapses into some insufficient kind of innervation. In suffering from adenoids, the whole vowel system is sometimes very lax.

"Vowel substitutions in such pupils cannot possibly be grouped together according to fixed rules. They sometimes seem, at least in the advanced degrees of the disease, to take place in quite a desultory way.

"Consonantal substitutions are a little more tangible. Lack of innervation is the common characteristic of them all—articulations of the point and blade of the tongue towards the gums, the d, t, n, s, sounds are performed too weakly.

"The weakness of the dentals is very conspicuous in combinations of two sounds in the group nd, nt, rl, lr, one of the two being used to represent both: Stanning for standing, elegan for elegant, eldery for elderly" (9, p. 41).

If the best results are desired, it is certainly only common sense to examine a vocal instrument before beginning to use it. Dr. Hagelin's recommendations are not unreasonable. He concludes that in view of the fact that defective hearing is caused by adenoids, compulsory examination of all school children should be made by specialists, and before beginning the study of a foreign language there should be a further examination of nose and throat in connection with hearing tests. On the request of the teacher every pupil should be obliged to consult a specialist to have his hearing tested and his nose and naso-pharyngeal region examined. Such a co-operation between the school and the physician is a *sine qua non* for success in the learning of foreign languages. We may add that such examination is necessary also in all language instruction.

Dr. Laaser (14) also, strongly urges the need of investigation of this trouble in the schools. This can be done without

taking a great amount of time, as shown by Dr. Holemann, who tested 354 pupils in two days between the hours of 7 and 12 A. M. The external signs, however, are insufficient for statistics. Examination by the finger is abhorrent to the child. It should, at least, in no case be permitted without the consent of the parents. The use of the rhinoscope is not always sufficient. Health inspection should, nevertheless, include a special investigation for adenoids, not necessarily an expert examination, but at least a report from observation of the usual symptoms.

In Leipzig the school physicians note the cases of adenoid growths by observing the usual symptoms. They do not, however, make digital examination of the naso-pharynx, because it would not be easy to sterilize the hands while making their general investigations, and they recognize that such examination is disagreeable to the children.

In Holland such investigation has been undertaken at the recommendation of Professor Guye by the teachers. Burger reports on the examination of a large number of these children with the rhinoscope. 15 to 20% of the children could not be examined in this way. Of 13,283 that were examined 30.2% (4,014) were found to have adenoids.<sup>1</sup>

If teachers make the preliminary observations a blank like the following can be used:

#### ADENOIDS.<sup>2</sup>

(N. B. Cross out the words not used in answering.)

Name of school.....

Name of principal.....

Name of class or grade.....

Name of teacher.....

Name of pupil.....

Sex.....

Date of birth.....

- |   |   |        |
|---|---|--------|
| 1. Does the pupil sit with open mouth?..... | { | Always |
| sometimes                                   |   | no     |
- 
- |  |   |        |
|--|---|--------|
| 2. Does the pupil complain of headache?..... | { | always |
| sometimes                                    |   | no     |

<sup>1</sup>Annals of Otology, 15, 1906, p. 389. The review of this is not very clear as to whether these were representative or not.

<sup>2</sup>This questionnaire is adapted from one recommended by Dr. Guye. See Z. f. Schulges: Vol. 17, 1904, pp. 90.

- |  |                             |
|--|-----------------------------|
| 3. Is the pupil inattentive?.....                | { very<br>somewhat<br>no    |
| 4. Is the pupil backward in learning?.....       | { very<br>somewhat<br>no    |
| 5. Does the pupil's voice have a nasal sound?... | { always<br>sometimes<br>no |
| 6. Does the pupil stutter?.....                  | { always<br>sometimes<br>no |
| 7. Is the pupil hard of hearing?.....            | { always<br>sometimes<br>no |
| 8. Does the pupil complain of earache?.....      | { often<br>sometimes<br>no  |
| 9. Remarks.....                                  |                             |

The main results of the numerous investigations of adenoids made during the last forty years may be summed up briefly as follows: First, the general cause of adenoids is an excessive activity of the lymphoid tissue of the pharynx; but the specific cause is not known.

Second, this hypertrophy of the naso-pharyngeal tonsil is a disorder of childhood, it usually appears before the age of six or eight and is very likely to subside or be arrested in the latter years of adolescence with approaching maturity. Apparently this disorder is connected with the greater activity of the lymph in childhood as compared with that of adult life.

The practical points for school hygiene may be summed up very briefly: First, these investigations have shown that a very large number of children suffer from this disease. Dr. Crockett's (5) estimate that 5 or 6% of children in this latitude have adenoid growths is probably a conservative one. The investigations in Leipzig, London, Stockholm, New York, and other large cities, indicate that the number, at least among the poorer classes, is likely to be much larger than this.

Second, this disorder not only interferes with physical growth and causes or aggravates many functional disturbances, but it interferes with speech and hearing and the mental ability of the pupil.

Third, in most cases where the effects of the adenoid are serious an operation proves successful. The best time for an operation is the kindergarten age, between 3 and 6.

Fourth, it is important that teachers should learn to distin-

guish this disorder, as parents are less likely to observe it; seeing their children every day the latter fail to recognize the most obvious symptoms.

Fifth, wherever the services of a school physician can be obtained, tests should be made for adenoids; and reports of observation should be made by teachers.

Sixth, nasal breathing is one of the conditions of efficient brain activity; this is shown not only by the effect of adenoids, retarding the mental development and intellectual activity, but also by experiments in artificially occluding the nostrils.

Seventh, no child should be sent to a school for the feeble-minded without a test made by a competent specialist to determine whether the mental defect is not caused by an adenoid growth.

Upon a conservative estimate there are in the kindergarten and elementary grades in this country from 100,000 to 200,000 children suffering from adenoids. Immediate detection and treatment by a competent expert are likely to mean the prevention of much discomfort, increased efficiency in school work, and the opportunity for normal development. Neglect is likely to mean a handicap in school work, lack of brain nutrition, imperfect development, speech defects, constant danger from colds, and ultimate deafness. Here is a case where no devices of formal education can atone for hygienic neglect.

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## THE RELATION OF A NATION'S SOCIAL IDEALS TO ITS EDUCATIONAL SYSTEM<sup>1</sup>

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The first thing that one observes when making a comparative study of foreign school systems is the strikingly intimate relations which exist between the social organizations and the social ideals of these peoples and their several educational systems. It is interesting to trace the relation between a few striking features of the German, French and English educational systems and the social organization and ideals of these peoples, and to consider what lessons we may learn from these European systems, and what is needed to bring our own educational system into harmony with our American ideals.

Taking up Germany first we shall look at the Prussian educational system as typical. Here we find two parallel systems of schools. The first and oldest system is composed of a three year *Vorschule*, giving elementary instruction, followed by the nine year *Gymnasium*, which in turn is followed by the university course of three years, leading to the doctor's degree and preparing for the so-called learned professions. The State gives only partial support to these schools so that tuition fees are charged sufficiently high to keep out all children of the lower classes and of the poorer middle classes. In these schools the classical, the literary, and the philosophical studies are almost exclusively pursued. Parallel to this system is the six year *Volksschule*, or free school for the lower class and the poorer middle class. The course in this school is very similar to that of our common elementary schools, except that the elementary courses in such cultural studies as the ancient languages are omitted and all the time given to the more immediately practical subjects. The children of the very poor must pass out directly from the *Volksschule* into active labor or into one of the numerous separate agricultural or trade schools, where all attempt at general culture or individual development is subordinated to the giving of immediate practical efficiency in some line of labor. Thus the upper classes and the well to do in the State pass through the *Vorschule*, *Gymnasium*, and the university or institute of technology, while the lower classes pass through the *Volksschule* and trade schools.<sup>2</sup>

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<sup>1</sup> An address delivered at the opening meeting of the Department of Education in the University of Texas, 1907.

<sup>2</sup> In the second half of the 18th century *Realschulen* or higher *Bürgerschulen* arose, which have developed into the present day *Real-*

So much for the barest skeleton of this system. As you see, there is no *common school system* at all, such as we have in America, in which children of all classes of society mingle freely, the well to do having a chance to learn of the virtue and strength of the poor and unrefined, and the poor and unrefined to catch something of the refinement and culture of the upper classes. The *Volksschule* is not only filled almost exclusively with children of the lower classes, but even the teachers in these schools usually come from these same lower classes. The normal schools which train the teachers for the *Volksschule* are entirely separate from the institutions which train teachers for the *Vorschule* and *Gymnasium*. Again, the work of the aristocratic *Vorschule*, *Gymnasium* and university is a composite unit, each part preparing for, and presuming upon, the addition of the next higher part clear on to the university. The free school system, on the contrary, is so organized as to encourage dropping out and to make it well nigh impossible at graduation to pass into higher schools. There is really a third system of education in Germany conducted through private tutors up till the university is reached. This system is patronized by the Kaiser, the nobility in general, and the extremely wealthy who ape the nobility.

We have, to be sure, samples of all these types of education in America, but here our one great common school system is doing 95 per cent. of all the teaching. When one begins to suggest to the well-to-do German the advantages of our great common school system he is met at once with the German ultimatum, "Ach Gott, nein! mein Kind mit dem schlechten Publikum." Rigid class distinctions are an essential part of the German social ideal. All upper classes look down on the lower classes, they know little or nothing about them and do not seem to want to know much

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*schule* and *Oberrealschule*, corresponding to the *Gymnasium* but giving science and modern languages instead of the classics. A hybrid *Realgymnasium* has also been created, teaching Latin and modern languages but no Greek. *Technische Hochschulen*, or institutes of technology of university grade have also been greatly developed. But all of these are as a rule pay schools. The government offers also a number of scholarships, enabling a few of the brightest poor boys in the *Volksschule* to go free into the higher schools. But, generally speaking, one may still say that the upper classes pass through the *Vorschule*, *Gymnasium*, and university or institute of technology, while the lower classes must pass through the *Volksschule* and trade school. Needless to say all such broad general statements as I shall make about these foreign schools would need many qualifying clauses to reduce them to absolute accuracy. What is said in each case is, I believe, true in general, and accurate enough to form the basis for such conclusions as are here drawn. I am not attempting to give an accurate and full account of these school systems.

about them, except how to get the most work out of them and to keep them where they are. The German professional man looks down on the German tradesman, who in turn scorns the laborer. They don't even want to come into the apartment house by the same door. There is one door for gentlemen and one for tradesfolk and laborers. There are many individual exceptions, but in the main the Germans believe that rigid class distinctions are right, and society without them would be to their minds abhorrent. With such a social ideal, this triple tracked school system and separate set of schools for each class is the only possible workable system. It is for Germans in Germany at the present time the only rational system.

Second only to the German's adherence to the class system is his present sincere infatuation for the military ideal. It is not merely that he loves to be a soldier and is prouder of his army than a small boy of his first long trousers, but this military ideal dominates the whole German life. Every branch of the government, the factories, the stores, the families even are run on the military principle—absolute and unquestioned authority above, implicit and unquestioning obedience below. The German military ideal calls for a small number of highly trained and broadly educated commanders, strong personalities, able to direct and command, and an immense horde of well trained, obedient troops, units without personality, patient and enduring, who know how to do exactly what they are told, to ask for no reasons, to think out nothing for themselves, to "stay put." The way in which this ideal is reflected in the school system is most interesting. In the lower schools, especially in the *Volksschulen*, where the great body of the citizens is trained, the organization is despotic and the method of instruction mechanical. On the other hand, in the university and in the institutes of technology, where the commanders of society are to be trained, the organization is free and democratic almost to the point of anarchy, the discipline is a practically negligible quantity, and the method of instruction such as throws a student absolutely on his own resources and leaves him to work out his own salvation or not in his own way and at his own time.

When first visiting the German elementary schools one is charmed with the perfect order, the decorous attitude of pupils toward teachers and elders, the wonderful funds of knowledge displayed by the pupils, the careful and pedagogically perfect explanations of all difficulties given by the teachers—explanations not only of the present lesson when not understood, but of the to-morrow's lesson which the pupil has not yet attempted for himself. As compared with this German teaching, the American teacher does practically no teaching at all. He

merely lets the boy teach himself and then quizzes him to find if he has done it. In fact the subject matter of each study is usually so thoroughly organized, so perfectly explained, so happily expressed by the German elementary teacher, all before the pupil has attempted the task for himself, that unless he be a genius he could hardly do better than memorize it just as the teacher gave it and repeat it thus in class the next day. So far as I observed, this they universally did. The teacher's talk and his questions to the class were so well organized that questions from the pupil seemed an interruption, disturbed the smooth development of the subject, and were usually frowned down. Slight originality in answers seemed to indicate a lack of proper respect for the authority of the teacher or the book and usually got little encouragement. After my first enthusiasm over the smooth running of things and over the perfectly organized knowledge of teacher and pupil had cooled a little, the mailed fist began to disclose itself. These boys were not studying here because they wanted to learn, but from fear, from force of habit, or because of the dread of being dropped out before the grade of *Secunda* was reached, and thereby being forced to take the extra year of army service in class with the peasants, and thus in German eyes to be eternally socially disgraced. These boys were getting quantities of book knowledge about two years ahead of that of an American boy of corresponding age, they were learning to do certain things efficiently in a certain way, but they were losing their capacity for helping themselves, losing their tendency to try to think out things for themselves, losing their initiative. In short, these elementary schools are after all merely the machine for grinding out the efficient, obedient, unquestioning units.

In the university, on the other hand, professors offer such courses as they see fit, begin when ready, and quit when they wish; the students elect about what lectures they please, attend them or not as they choose, live where they please and do just what they want to. Nothing is forced upon the student. Every opportunity is offered for self direction and the cultivation of independence of thought and action, and every encouragement is given to critical study and original research. Here are being trained the independent leaders, the domineering commanders. Bismarck, I believe it was, once said, of the German university students, "One-third drink themselves to death, one-third study themselves to death, and the other third rule Europe."

Thus we see the outward organization of the German school system is the counterpart of her social organization, while the spirit of the discipline and method of teaching reflect primarily the dominant military spirit of her people. There are many

other qualities of German character and social ideal both good and bad reflected in her school system, but these must suffice for our present purpose.

France has a similar double tracked educational system. The outward form of the French educational system is even more centralized and despotic than that of Germany. It in no wise comports with the present democratic tendencies in France. It is most irritating to the educators themselves and its presence can be explained only on historic grounds. It is simply an inheritance from the days and spirit of Napoleon and is being gradually changed. If the outward organization is an inheritance from the imperialistic days, and is being gradually changed, the inner spirit is far from it. On my first entrance into a French elementary school after six months in the strict rigid German atmosphere, I felt as if I had struck a mob. Some pupils looked out of the windows, some drew pictures, some walked, some talked to each other, some read their books, some listened to the teacher, and some talked to him or to me. As compared with the German elementary school it seemed more like an American Sunday school picnic crowd waiting for the train than like a school. These were very small pupils. Certainly there was no military spirit in this school. No, France is sick and tired of military. Her people, struggling manfully against the frightful weight of her social heredity, have set up as their motto *Liberté, Egalité, Fraternité*, and in the schools they are trying to train up boys and girls into free men and women. Their ideal is not a race of efficient, but obedient, units governed from above, but a nation of free individuals, each governed from within, hence the school must give children practice in self government, for school is a preparation for life. I confess that the results in these early elementary grades were disconcerting, and I followed the classes on up the grades with intense interest and many misgivings. Practically no punishment was allowed, and French nature is perhaps the most buoyant and effervescent on earth. However, by the time the middle grades were reached, order began to appear, and during those years which correspond to our high school the pupils were, without question, the most polite, the most universally well behaved and the most attentive and industrious I have ever seen in any country. This really remarkable discipline was apparently not due to rules, and the pupils gave no evidence of uncomfortable constraint. Here was a seeming miracle performed, a whole school full of youths brought in a few years from apparent anarchy to the point of governing themselves, and all without severe discipline and almost without punishment. They were always treated with kindness and sympathy, their individuality had been re-

spected, the teachers had tried to make the work appeal to their natural instincts and arouse their loving interest. Had I not seen this transformation time and again with my own eyes, I could hardly have believed it possible.

The next distinctive characteristic which struck me in the French schools of which I shall speak is one hard to understand unless one has had some intimate experience with a Latin race. It first appeared to me in a common school in Paris when the principal broke up several classes to have a large number of pupils come down in the auditorium and perform for us a play which they had written for themselves. These children from ten to fourteen years of age had not only written, with a little help from the teacher, the rather heroic and classic type of short play, but had planned the stage setting and concocted the helmets, breastplates, etc. They acted it out after their own ideas with an intensity and earnestness that was remarkable. The principal of the school was most responsive and pleased, and remarked to me something like this: "Ah, that takes a lot of time, but is of more worth than the learning of whole pages of some literature book. What we want is to make these boys sensitive to the things around them, to the beauties of literature, the beauties of plot, of expression, of thought; and this attempt to do something themselves and this appreciation of the beauties of their own work will make them more sympathetic and more sensitive to the beauties of the great masters." The Frenchman in his heart seems to yearn not so much for mountains of laboriously heaped up knowledge, not even for such excessive efficiency in action, but for sensitiveness and responsiveness, responsiveness to all the beauty of human relations, of literature, of art, of science, of nature. What the German rationally calculates out, what the Anglo-Saxon by common sense and constant blundering happens on finally, the Frenchman catches by some brilliant intuition through his open and sensitive nature. This is his joy, his ideal. It is this sensitiveness which her educational leaders seem to be trying to develop. What though the production of this schoolboy play took the time in which a hundred pages of French literature might be learned? It was more than compensated for in the eyes of this principal if, in the composition or in the interpretation of one noble passage, the boy got a real feeling of the beauty of some noble sentiment or of some perfect literary form. Perhaps here would be inspired some youthful Racine, some Hugo. How common this spirit is in French schools I do not know, but certainly it is there to some extent, and, so far as my observation has gone, far more so than in any other land. Only a Frenchman or Italian could feel the full force of such an ideal.

Leaving France with these rough strokes, let us take a brief look at England. The English, holding as ideal an aristocratic form of government, maintain naturally also an aristocratic form of school organization. The poorer classes are given their limited education in free elementary schools, designed to meet what are supposed to be their limited needs; that is, such education as will make them efficient clerks, carpenters, cooks and servants for the upper classes, and will not inspire them with too many disturbing ambitions for higher spheres of activity. The aristocracy, both of blood and of wealth, have their own separate system of great so called "public schools" and universities, such as Eton, Harrow, Rugby, Oxford and Cambridge. This is not the whole truth. The English aristocracy is not a closed one. The door to the nobility is always open to genius and, likewise, in their school system numerous scholarships have been established through which the brightest of the poor boys from the free schools are given admission into the aristocratic public schools and universities to obtain training for leadership. The ideal system of society to the English mind is a class system in which the upper classes know and exercise their superiority, and the lower classes recognize and accept their inferiority. This national ideal is so strong that one finds not merely the double tracked educational system of Germany and France, but even among the aristocratic schools this division of society into the obedient and the obeyed finds its expression in the system of upper class student discipline and of "fagging," which, boys and professors both claim, teaches the young ones "to know their places," and the older ones to command. For example, at Rugby upper class boys are lodged on the upper stories of the quadrangle and the lower class boys on the first floor. Any upper class man may at will stick his head out of his window and yell "fag," whereupon every lower grade boy in the building must rush out into the quadrangle to see what is wanted. The last one to get out must run up and do the chore for the upper class boy. He may be ordered to go and get wood and build a fire, to run down town and buy tobacco, to go over to another building and borrow a tennis racket, or to do some other such menial errand. If the little boy should refuse, which he almost never does, he might be caned by the upper class boy without any interference even from the teachers. They themselves were caned when lower form boys and in turn, when they became upper class men, caned and fagged the lower boys, and believe that it is good for a young one "to learn his place," as they say. In each of the several houses in which the pupils are lodged in these public schools, the discipline is usually maintained immediately by an upper class man, who is denominated house

captain. He enforces his authority even to the point of caning a lower form boy. At aristocratic Eton, for example, the house captain takes his cane with him to football matches and public gatherings in order publicly to punish and hold down any possible desire on the part of the lower form boys to indulge in practices which are proper in his eyes only to older form students. This responsible position of house captain is acquired you would think because of scholarship, or character, or leadership. Oh no! Just as the son who is born first is given the titles, powers, and wealth, no matter how stupid he may be, so the boy who entered eight years ago on the first of October is given the position over the boy who entered on the second of October, regardless of qualifications.

Another thing which strikes the American in England is the extreme uniformity in their ideal of an English gentleman. To this one distinct type of hardy, athletic, energetic, aggressive, persistent, indomitable cultured gentleman they all wish all of their sons to conform. And so we find that practically all their great public schools and universities are conducted on one plan. They have till recently had only one course of study, one round of games, and one set of social activities. To further assure this uniformity of type, the children are removed early from the influence of necessarily varied home life and sent to live in these public schools under a common discipline, common curriculum and common social life from about nine years of age till manhood. This breaks into the home life and produces an uniformity of type that to our mind is most monotonous.

Another striking English trait which dominates their social life and reflects itself in their school system is conservatism. Your typical Englishman is a conservative beyond all compare. Tallow candles are still found in a goodly per cent. of English homes. Even last year the faculty at Eton were still angry that invisible steam radiators had been introduced into the long, cold, stone dining hall to help out the two open fireplaces in the sight of which the boys with blue lips, and quivering spines had eaten for centuries. This distrust of all that is new, this clinging to the old, this hatred of change which is such a marked characteristic of the great body of Englishmen, finds its expression throughout the whole school system. Oxford has been the last great national university of the western world to yield any place at all in her curriculum to modern science, modern languages, and modern literature. Greek and Latin literature have been taught at Oxford for five hundred years but the professorship of English literature there is only about fifty years old. Even yet the course of study and the methods of instruction in Oxford are quite similar to those of the seventeenth century. The favorite course of study of one of the

most modern of the English public schools devotes during the six upper grades seventy-six hours to Greek and Latin, but only six hours to English and ten and a half to history. It is the Englishman's intense conservatism and his love for a common uniform type which have for so long forced upon the colleges and universities their mediæval curriculum and their single set course of study. Seeing this, one might be puzzled to understand how the Englishman's love of freedom and self assertiveness find expression in the schools. This is done primarily through the enormous rôle left to athletics, to sports and games and to social life among the students.

Coming now from these scattered glimpses of foreign social ideals and foreign educational practices, what can we bring home to America? The greatest and best lesson one learns is that he can bring home not one single practice or institution in its entirety.<sup>1</sup> One learns that any single foreign institution is but a member of a vast, closely related and mutually dependent set of institutions, the reasons for the establishment of which can be understood only through a knowledge of the history and the ideals of this people. The success of an institution is, to be sure, dependent in part on its internal character, but also in large measure upon its fitting into the established social system and meeting the ideals of the people. Simple as this seems many of our distinguished educational leaders have not yet grasped it, and consequently we are constantly trying to graft on to our American educational system German and English institutions. The latest illustration of this is found in the movement for introducing a set of separate high schools for the study of agriculture. Wisconsin and Minnesota started this by copying the successful German agricultural high schools. The United States Department of Agriculture, through the Davis bill, is now seeking to establish with national funds a large number of such schools in the several States, and some leaders of public opinion in Texas are also recommending that Texas set up in each congressional district one special high school solely to teach agriculture and educate farmers. Germany with her inherited rigid class distinctions and her limited suffrage naturally educates her farmers in her agricultural schools, her artisan and trades folk in her *Volksschulen* and

<sup>1</sup> In order to avoid giving possible comfort to the narrow view held by some educational jingoes, perhaps it would be well to call attention to the fact that the above statement in no wise means that America has nothing to learn from a study of these great foreign school systems. We have already learned much and can learn much more, if we but study them aright. My purpose is to suggest the way in which such study should be made, to point out the danger in merely copying programmes and methods, and show the limitations set by nature to the transplanting of practices and institutions.

trade schools, and her professional classes in her *Gymnasien*, while young princes are taught by private tutors. No better plan could be devised to keep the various classes in the community ignorant of one another, to narrow each one's life down to the limited interests of his set, and to preserve thus the hereditary class distinctions so dear to the average German. But why adopt this plan in America? At present we have no rigid class distinctions. If we have become persuaded that this is a mistake and wish to establish them, then by all means establish these separate systems of schools for the different classes of occupations and bring each class up ignorant of and out of touch and sympathy with the others. But if we are to preserve our universal suffrage, by which every one has equal vote in determining measures relating to any and all classes, is it not absolutely essential that each class have an intelligent appreciation of the services and needs of all other classes? It has been the pride of our American schools that the children of Frenchmen, Germans, Americans, of carpenters, cooks, merchants, doctors, poets, politicians, all were turned into our common school together and came out more or less prepared for their different occupations, but with common American ideals, with a common democratic spirit of tolerance and appreciation. In order to be efficient, we are obliged to narrow the class work and restrict the studies of a boy preparing to be a farmer largely to subjects which bear upon this work. This is narrowing enough without putting him off in a school in which all the pupils and all the teachers are studying exactly the same subject. By this, not only would the farmer lad lose the stimulation and broadening knowledge of life and society which he would gain by being taught in the same school with the children from other classes of society and with varied interests, but the children from these other classes would lose on their part the stimulus offered by the presence of the farmer boys. Each will be narrowed and weakened, and society will tend to fall apart from sheer lack of any common interests, common knowledge or mutual appreciation. The establishment of separate classes ignorant of and hostile to each other will be an accomplished fact. That there is grave danger in this movement towards separating the different classes of society into different schools no man who will stop and think can deny. There has long been in certain sections of our country a similar undemocratic movement toward setting off all manual and domestic education in separate schools, but Texas has been wise enough to introduce this work into her regular schools. She has thereby established within three years twenty-two schools in which manual training and domestic economy are taught at about one-tenth of what would have been the expense of an

equal number of separate schools for this work. And under our democratic school system the children pursuing these industrial courses are kept during their school years under the broadening influence of a school of general culture and are receiving from their teachers and companions training for intelligent citizenship and decent living as well as industrial efficiency. While extreme specialization may be necessary for the highest efficiency in advanced institutions patronized by mature students, let us in democratic America, which places individual worth above industrial or military efficiency, brook no narrowing specialization of our educational institutions during those years of childhood and youth when our schools should be striving first of all to make men and women—free, self-respecting, self-governing citizens. Let all of our children grow up together in a common school and the varieties of needs and capacities be met by a system of limited election of studies even in the preparatory schools.

This study of foreign schools and social ideals teaches us in the second place that not only is every institution merely a part of a great social whole and cannot be transplanted, but that even a great principle of education, of government or of religion cannot be transplanted bodily from one people to another, for it must inevitably be interpreted by each nation in accordance with its racial characteristics. For example, all the great nations of western Europe subscribe to the same religious principles, but their interpretations and their practices in school and in church are as varied as are their several racial ideals. Rome voted out heathen idolatry and adopted Christianity fifteen centuries ago. The temples of Venus and Apollo and Castor and Pollux have crumbled, and were buried for centuries under forty feet of dust and city garbage, but the Romans still fill their churches with images of their dead saints, before which figures myriads of candles daily burn and thousands of devout pray for intercession. They no longer are inspired by seeing Castor and Pollux mounted on white chargers leading the fight against Rome's enemies, but when plague comes, when Vesuvius spreads destruction, when the last reserve sweeps into the fight to stay the crumbling battle line, the priest holds aloft the invincible monstrance, or some reliquary containing the heart of a St. Francis or other such sacred physical relic. You may lay down your spiritual Christian principles, but these artistic, poetic Italians, with their vivid, childlike imagination and craving for pictorial representation, demand with it some physical form. The American Catholic may be satisfied to conceive of St. Peter as the spiritual ruler of a spiritual church, but your Italian Catholic will have in addition a bronze image of St. Peter, dress this in a pope's

mitre, and in all the silks, rubies and diamonds of pontifical splendor, and solemnly bow and pray before this physical representation of his spiritual father. The images of Castor and Pollux and Jupiter have been cast out, but in their stead have arisen St. Michael, St. Mark, St. Peter and the hundreds of saints whose images fill the churches and before which the pious fervently pray for aid in their undertakings and troubles. The recognition of this fact of fundamental racial differences and consequent social and religious conceptions and practices is most painful to one who has been accustomed to think that the solution of all educational and social problems will be found when we think out the one true and best ideal of education and the one best system for carrying out this ideal. Such facts force us to see that there is no one best social system nor one best school system for all nations and all people. This seems again a very simple proposition, but it is one that the leaders of our nation have never learned. They have practically exterminated the Indian, made a fool of the Negro, and made an enemy of the Porto Rican and Philippine Islander by well meant but unscientific attempts to force on them suddenly the best education and the best social system from our Anglo-Saxon point of view.

This study of foreign ideals and educational systems shows us then that, whatever we may hold as the ultimate aim of education, the educational organization, the method and immediate aim must grow out of the social ideals and social needs of a people. The work of the educator is not merely to sit in his study and determine *a priori* what is best for mankind in general, but he must live among his people, be of his people, and learn of their ideals and needs. The highest ideals of the noblest of his race must the educator recognize, and through his school organization, his methods and his course of study carry them out through the young into the lives of the masses. This, too, may seem a very simple task, but in reality it is very far from it. To catch the true and not the false ideal of your people is to be able to lead your race from the bad that is in it to the good that it really in its heart loves. When the educator mistakes for a permanent love of his race some passing craze or temporary passion of the people, born of some untoward circumstance, then the school becomes an engine of destruction, the mightiest known to man. The progress of the human race was set back centuries when the leaders of education in the early Christian era interpreted as a permanent need of the race and carried into the schools as universal practice the then present asceticism and otherworldliness which apparently arose out of the unfortunate grafting of Neo-Platonic philosophy upon the religious views of the inhumanly perse-

cuted Christian sect. Likewise, in our own day we have yet to see whether the German race is not to fall prey to the intense militarism and rabid patriotism which were carried into their schools to meet the immediate necessities arising out of her defeat by Napoleon, and are kept there to make possible the aggressive world policies of a brilliant and ambitious emperor. In America, out of the physical dangers of pioneer life and the pressing need of conquering the wilderness and subduing nature to man's uses, and later out of the tempting opportunities afforded by boundless natural resources, came an abnormal interest in the pursuit of the mechanical and physical and in the heaping up of material wealth. Our educational leaders have for some time been responding to this temporary need as if it were the one permanent and pre-eminent demand of our nature. Through ill judged means chosen to this end, our schools, often unconsciously, yet none the less effectively, have for a generation been carrying to the masses as the primary aim of life the mastery of physical forces and the accumulation of material resources, without sufficiently instilling rational views concerning the proper distribution or the worthy use of this wealth. It is no wonder that having sown the wind we are now reaping the whirlwind of brutality and corruption in pursuit of wealth which daily shock all thoughtful people. It is true that the school is not by any means the only factor responsible for this result. It is also true that all this time the schools have been furnishing morning talks and reading books filled with praise of the spiritual beauties of life and of noble ideals of self-sacrifice. But what does this amount to when the whole bent of the school work is toward the acquirement of that knowledge and that skill useful in heaping up material wealth or in acquiring mere personal power.

There are many other grave questions suggested by this cursory glance at foreign social life and school systems, but time does not suffice to mention them.

Let us close by considering a few elements of our own social ideal in their bearing upon our educational system. What is the American social ideal? This is hard to answer fully, for our ideal is very complex and is not yet wholly crystallized. A few elements of a national ideal seem, however, plain.

First of all, our social ideal is democratic. The real American does want every man to have a fair chance to show what is in him, and not to be prejudged because of humble birth.<sup>1</sup>

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<sup>1</sup>This is true only of white races. While the American does not prejudge because of humble birth, it seems that the vast majority, North, South, East, and West do prejudge the yellow and black races, and are unwilling to share this land and its opportunities with them on absolutely equal terms.

In order to realize this ideal three things are demanded of our schools: First, that they be free from top to bottom, for pay schools at any stage would exclude the poor; second, that these schools be common schools, that the different classes of society be not educated in separate schools, for to herd all the children of the poor in one set of schools, where they never see or mingle with the cultured and refined, is not to give either the poor or the rich a fair chance to develop; third, the curriculum of our public common schools must be enlarged till it offers training for every kind of worthy human talent, and preparation for every honest occupation. To give the boy with literary talent unlimited courses of study and turn the boy with musical or manual talent away empty handed, to give the doctor a four-year course and turn the artist or farmer out to graze is not a "square deal." The American system has accomplished much, but much yet remains to be done, to bring our schools in this regard fully into line with our national democratic ideal.

Second, our American ideal demands that each man shall have his own individuality, and develop in his own way—not that all shall conform to one type, however excellent that type may be. This spirit demands of our schools and colleges the elective system, for few people have the strength to plough through a tough uniform required curriculum and then develop their special talents afterward. This ideal demands not only that there be election of studies, and not one universal common curriculum, but that the opportunity for making this election be kept open as long as possible. For this reason again separate parallel sets of schools leading to different classes of occupations, such as we find in Germany, have no place here, for with such radically different curricula in the early grades of these two sets of schools, it is well-nigh impossible for a boy to change from one to the other after he is once started.

In the third place, our American ideal demands that a man first of all be a man, a full human being, a full citizen with all the rights and responsibilities of a full man and citizen. For this reason our public school system can never encourage specialized elementary schools, celibate societies for teachers, militarism, or any form of extreme specialization which breaks the God-given balance of powers in man, and for the sake of securing some one-sided end put a man out of touch with the loves and hates, desires and needs of his fellow man, thus leaving him too ignorant of life in general to vote intelligently on common questions of life. The capacity for touching the common life of the race undoubtedly lies at the root of the solidarity and strength of the Anglo-Saxon race. In spite of class distinctions in England, this has been kept alive by sports and

games and by the common trials of war. In America it is developed in our common schools, into which children of all classes go and in which they live together on perfect equality in their classes, in their sports, and in such social life as the schools are now affording. As the growth of cities and the specialization of industries increase and keep people from touching one another in their common labors, this common social life of the school must be increased apace and extended till the schools become the social as well as the intellectual centres of the community. Here our educational leaders have yet before them a task which they have hardly begun to realize.

In like manner we can say that our American ideal is not that of a society composed of a few brilliant commanders and a great mass of obedient units. Our ideal is a society composed of free citizens, each independent in thought and action, possessing initiative and resource in novel situations, governed by laws imposed from within—or at least approved from within. If our citizens are to think for themselves, are to have initiative and self control, then in our schools the children must begin to think for themselves, to learn to direct their own efforts and govern themselves. The military discipline and the perfect mechanism of the German *Volksschule* have no place in America, nor has the fagging system of England. Our schools must allow boys and girls to share the responsibility in choosing their own courses, must encourage them to work out their own methods of solving their difficulties in their studies, in their sports and in their social life. Freedom in forming and expressing their own opinions on the part of pupils, freedom in working by a method different from that of the teacher and the book, courage and confidence in tackling difficulties alone, these are what our real American teachers must aim at from the lowest grade clear through the university. This is already appreciated by our teachers to a degree that makes foreigners shudder in dismay, but in my opinion much remains to be done. In the matter of discipline, for example, our universities have in the main come to a rational honor system of self-discipline, but our public schools are only beginning to get out of the old monarchial state and have yet much to learn, especially in regard to high school discipline.

These few considerations will show how vastly different are our educational problems from those of the European States, and how very dangerous it would be for an educator to glean superficially from foreign school systems. Our American educational system, like our American social system, has made many strides upward. Both still have many weak points and have much yet to be added, but these additions must come by healthy growth from within and not by grafting on our vigor-

ous young tree the alien shoots from the stems of European civilization. The American educational system has its own unique problems and must be developed in accordance with our social ideals and the genius of our people. With a new composite race, new social ideals and institutions, in a new land, we have the most magnificent opportunity ever offered the human race to create new educational ideals and develop a new educational system in the clear light of scientific truth and human reason, untrammeled by inherited institutions and inherited theological or economic prejudices. This work will demand men and women with the fullest knowledge of history, of biology, of anthropology, of physiology, of sociology, of psychology, with the habit of observation of the scientist, the broadened sympathies of the literary scholar, the reflective power of the philosopher and the faith of the prophet. I can think of no task involving more delicate sensitiveness of nature and broader views of life. It offers a call to the pioneering spirit of the soul, to the strong of mind, the stout of heart, the indomitable of will. In this great work that is before our nation and before the human race, it is my sincere hope that this new department of education here may lead, and that from our seminary, our laboratories, our experiment school, and from our alumni may go out a constantly increasing fund of discovered fact and carefully thought out principles which will furnish the basis for the development of an ever saner and broader educational system.

## RELATION OF THE CHURCH TO EDUCATION<sup>1</sup>

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By G. STANLEY HALL

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Christianity has a record in the history of education as unique as it is magnificent. Jesus himself was a great teacher, brought a new doctrine and gave a new theory and rule of life. He invented the parable, which made nature and social life eloquent of spiritual truth and which was a pedagogic device more portable and more persistent than the ideal of Plato's myths. His disciples were commissioned to preach and teach; Paul was a great master of polemic and hortatory exposition; Origen called the Holy Spirit the divine pedagogue because it led into all truth, and Tertullian called its "still small voice the new muse of truth." When in 529 A. D. Justinian's famous edict closed the four great schools of classic philosophy, the church took possession of the world of culture and slowly evolved a new system of thought and life; Rome became the great patron of learning, wrought out a new philosophy and established universities at Bologna, Salerno, Paris, Oxford, Montpellier, Prague, Cambridge, Vienna, Heidelberg, Florence and about fifty others, many now dead, all before the year 1400. Long before this Charlemagne and Alcuin had established cloistral, cathedral and other schools where reading and writing and the seven liberal arts were taught to all comers, and Latinity had given Europe one international language, that of culture and of the church. For centuries the liberty of teaching and learning was almost complete, and we Protestants are prone to do scant justice to the educational foundations laid by the Catholic church in its great formative period. When she began to grow suspicious of the learning she had so sedulously fostered and the Renaissance and the Reformation arose, we find Luther, Erasmus, Calvin and Melanchthon establishing schools and reconstructing courses of study and nearly two score new universities were founded under the influence of the Reformation in Europe. It was again profoundly felt not only that schools of high and low grade were the hope and the method of Christian propaganda, but that ignorance and superstition were the parents of sin and that enlightenment was the surest way to bring men to true religion. Thus it came about

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<sup>1</sup> Address at National Council of Congregational Churches, Cleveland, Ohio, October 11, 1907.

that almost down to our own times the clergy have been the teachers, leaders, inspirers of most of the best things that have been done in education. This was true of the Catholic church, of Lutherans, Puritans, Anglicans and the rest. Many a high school and college in this country owed its origin to religion. Belief in education has always been one of the first articles in the unwritten creed of Christendom. Even when the influence of the clergy began to decline in the higher academic grades of culture, they were long its chief representatives to the masses and established and directed elementary schools.

Now, however, in all Christian lands among Catholics and Protestants alike, this educational supremacy is either lost or in various stages of decline. There has been a growing aversion to clerical influence in education and complete secularization and laicization of the schools is to-day the ideal goal in many high places. It is high time for the church to awake to this situation to realize all that it involves ; to know the extent of its pedagogic decadence ; seek to fathom its causes, to trace out its consequences and to do its utmost to find the cure. We are still doing much, and let us thank heaven and take all possible courage from the large remnant of educational efficiency still left us. We still have the Sunday School, though its work needs much reconstruction to be brought abreast of the methods of secular training. We have the splendid work of the Y. M. C. A., but it reaches but a very small fraction of the young men of the land who need it ; our theological courses are improving, but how slowly, when compared with other lines of professional training in law and medicine, technology and pedagogy. The church in all its branches collectively has a score of charitable and reformatory agencies and institutions that are doing the Master's work among the poor in slum and remote districts ; the influence of the pulpit is potent against evil in high places and in low, against corporate greed, oppression, industrial malpractice, social evil and political corruption. Many denominations have established colleges in this country, but as a class they are relatively declining before the rapid advance of unsectarian and State institutions. In all these great causes, the church not only prays, but works ; it not only follows, but sometimes leads ; it not only preaches, but acts ; but our efficiency is still far below the great traditions of the church in the past. What we are doing, we know and are perhaps a little too conscious of it, so I bespeak your sympathy in my rather unwelcome task this evening of trying to point out first some of the difficulties and adverse influences in the present situation.

1. The separation of church and State, while a great, is not an unmixed good, for it has involved abolition of religious

training for our entire public school system. Boys and girls are most susceptible to religious influence during the teens, when practically all confirmations and most conversions occur, and at this age more than at any other religion is the bulwark of morality and nothing can fill its place. It has been said that were religion all false, we should have to invent and apply it if we had the wit to do so, for its influence upon the emotional nature, which is now at its flood-tide, and for the restraints which it puts upon the lower propensities which now burst into sudden strength while the intellect and conscience is yet too undeveloped and uninformed to control them. A number of careful consensuses state that very many of our children pass through not only the required but even secondary stages of schooling without knowledge enough of Scripture even to understand the commonest allusions to it in literature. Despite the brief morning reading from Sacred Writ sometimes practiced, many American children leave school when legal requirements of attendance are satisfied and others graduate from secondary schools and even colleges, who have never felt even the literary power of the great passages of the Old and the New Testament and with no coherent knowledge whatever of the Bible as a whole. I will not take time to report here on the as yet somewhat discrepant conclusions of statistics of these recent studies, but all agree that the proportion of children thus densely ignorant is very great, and that for a decade or two it has been steadily increasing. Our Catholic brethren complain that the schools are Godless. We Protestants who gave the Bible to the laity have yet more and more to complain of Bibleless schools.

2. Meanwhile what is the State doing in its secularized public schools? Out of 365, during 214 days of the year there is no school in the United States, the average length of the term time being only 151 days. Thus, about five-eighths of the time the American child could not attend school, if he wished to, but is exposed to all the evils of idleness, and who can name a single evil which pedagogues are so fond of charging up against truancy that should not equally be charged against vacations which the truant simply prolongs? Thus, during considerably more than half the week days of the year, the school, and usually the grounds, are closed to the children.

How about attendance when school does keep? Of the 23,500,000 children between five and eighteen years of age, 16,500,000 enroll, and some 7,000,000 who should, do not do so. Those who enroll actually attend 105 days out of the 151 on which school keeps and are absent on the average about one-third of the time. Thus, we can say roughly that less than half the children who should be in school are actually there

during less than half the week days when school is in session. All these statistics are from the last report available, viz., for the year 1904-05. Boies estimates that 8,000,000 American children under fifteen are constantly schoolless, that there are at least 1,400,000 illiterate voters, and, of course, a vastly larger number of illiterates of both sexes above ten years of age, which is the usual basis.

The average pay of public school teachers in this country is \$55 per month for males and \$42 for females, the latter constituting 76 per cent. of all. Far less than half of our nearly half million teachers have ever had any professional training, and between one-third and one-fourth of them leave the profession every year. This poorly paid and untrained army of raw recruits is our chief hope against illiteracy and all the evils that it entails. They must Americanize the children of the million immigrants that now are landing on our shores each year. Yet our faith in the permanence of democratic institutions, of civic purity, business integrity, and personal virtue has come to rest more and more upon these schools and teachers. Do and can they thus constituted justify this faith?

Again, almost the entire control of our schools to-day is in the hands of local boards who determine the amount of money to be raised and expended for education, provide schoolhouses, text-books, employ teachers, fix their pay and the length of the term, etc. Under this system the more ignorant a community is and the more in need of good schools, the less likely are the boards that represent them to see this need and the less the chance that they will be able and willing to meet it. While superior and devoted men can sometimes achieve excellent results, the system itself is bad, and low politics, sordid views, false economies and vacillations are too common, while favoritism and graft are not unknown. Men but little above the average intelligence and virtue of the community and whose chief desire is to please their constituents and win popularity enough to climb higher up the political ladder, of which the school board is the lowest rung, are about as unfit custodians of the vital interests, which in a Republic centre in education, as could be found.

Again, has the school moralized a country where divorce has steadily increased for twenty years in every State save one that keeps such statistics, so that there are now a trifle more divorces in this country in one year than in all the other Christian lands combined, *i. e.*, amounting to about one-tenth of all who marry? We have 2,921 courts with power to grant divorces as against England's 1, Germany's 28, France's 79. This country leads in homicides, which for the last dozen years amounts to from 8,000 to 10,000 per annum, a higher rate than

in any Christianized and civilized land, enough being slain yearly here to populate a small city. About two per cent. of the slayers are caught and punished as against over ninety per cent. in Germany. The percentage of juvenile crime which is rising in general is increasing faster here. Despite all agencies, old and new, there has been a remarkable increase of hoodlumism in American cities within five years, and the proportion of convictions to population by age is greatest here during the middle and later teens. There are many causes of this feralization of Youth besides the long vacation during which many houses and estates are closed and tempting. A new one is that while we have been raising the minimum age of child labor we have not succeeded in keeping the child in school during these years when he is barred from so many occupations by these new child-labor laws, so that after satisfying the requirements of the law of school attendance boys who will not continue their education are now unable to find employment. Yellow journalism with its daily chronicle of crime, the increase of urban life that forces so many lower propensities into precocious development before the powers of control are matured, the fact that our schools appeal essentially to the intellect and strive principally to inform and smarten it, the fact that 90 per cent. of all the school boys in the United States satisfy the requirements of the law without ever having been under the influence of a male teacher, and that women are not the best trainers for boys in their teens on the duties of citizenship and political life, voting, and that budding manhood demands more masculine treatment—these are some of the difficulties with which we have to contend.

Secular education is popularly supposed to abate superstition. Does it do so? A recent writer collected over 7,000 confessions of superstitions concerning such matters as salt, fire, moon, owls, cats, mirrors, horse-chestnuts, days of the week and year, birthdays, numbers, warts, right and left hand, charms, precious stones, money, dreams, sneezing, weddings and nearly one hundred other such topics. These confessions were all by American students of *academic grade* who were preparing to become teachers, and one-half of all were more or less believed in and nearly all had been believed in earlier in life. They are relics of very low savage culture and related chiefly to death, disease, money, love, etc., and show that our education, science and civilization have done but little to weaken the old pagan faith in luck, signs, etc. Not only miners, sailors, gamblers, lovers, but masses of our fellow citizens are credulous in different degrees not only about many such things, but toward palmists and fortune telling by cards, stars or diviners by scores of omens, hoodooes and mascots, while rank

morasses of occultism, crasser forms of spiritism dominate most of the lives of some, if not some of the lives of most. It has even been asked whether education by bringing children together has not done nearly as much to diffuse as to check these superstitions. However this may be, it is clear that those who linger in this outgrown stage of thought and to whom the world is a chaos and not a cosmos are not truly educated.

Again, surely good citizenship requires common honesty, business integrity, fair play and truth telling. Are we progressing here? What about the appalling revelations made within the last three years in so many places concerning the adulterations of drugs and patent and other medicines, foods and drinks, about our growing money madness, and what is becoming of business integrity under the methods of competing cheapness of productions, trusts and combinations that control the prices and output and even of the interests of life, about secret rebates and the suppression of the natural laws of competition? How many will say anything that goes and do anything that shows, and have at heart really adopted the maxims of Sterner and Nietzsche and scruple at nothing that succeeds and regard nothing with remorse except being found out and whose supreme goal in life is to get rich, make display, give themselves all the pleasure their bodies can bear? What about the wful staatistics of drink and the growing laxity in the sexual relations in both high and low classes, or our race suicide as seen in the steadily decreasing birthrate and the steadily increasing infant mortality under five and especially under one, which is greater in our cities than those of any other land? Are we awake or sleeping and dreaming concerning these general tendencies and ineluctable facts or are we living in a fool's paradise, and is our national optimism like that of Dr. Pangloss who cheerily praised God and insisted that his was the best possible life at every progressive stage of defect, and human leadership? Can a nation lean toward barbarism amidst electric lights, automobiles, telephones, splendid homes, schoolhouses, churches that are teeming with wealth, swarming with promoters, with get-rich-quick schemes as well as with noble philanthropists and reformers who are bravely stemming the tide? Is it not high time for yet larger and more constructive and concerted effort for confession on the part of church and school that much as has been done, the best endeavors and achievements of the past and present must not only be again equalled, but exceeded and grow pale before still greater accomplishments? We delude ourselves that all these evils can be overcome by habits of neatness, by punctuality, order, the moral influence of music and history, by emphasizing and teaching respect for authority, self-government,

good character and example of teachers. Yet these are the *only* cures I find in the latest discussions of the pedagogy of the present.

Let us, then, finally glance at a few of the schemes of betterment that have been lately and seriously proposed. One thoughtful writer<sup>1</sup> suggests further centralization of educational effort in a national bureau at Washington with three long-tenured and highly paid commissioners who shall not only collect and distribute information like the present Bureau, but shall prescribe a general plan of instruction for the whole country and advise both national and State legislation and that both together shall distinctly reduce local autonomy. Especially the States must assume control of all schools, assess, collect and distribute the school tax, prescribe the length of term, salaries and textbooks, the qualifications of teachers, compel attendance of all children up to sixteen. This, it is urged, would slowly remedy many evils.

Another urges that every educational agency must now be co-ordinate and that not only public but private schools and the training of all delinquents and degenerates and juvenile courts should be correlated so that all children of school age, whether in or out of school, should be taken account of. Hitherto these agencies have been directed by very different methods and with very diverse degrees of intelligence. Normal courses should fit teachers and caretakers in all these lines. Under such a system, each child could be placed in whatever position he would get the most good; and wasteful misfits, both of pupils and of teachers, would be avoided. The child is now a legal personage and belongs to the State as well as to the home, and the former should assume co-guardianship.

It is now nearly twenty years since the public schools of France were secularized and all religious teaching forbidden in them. Fearing an increase of juvenile immorality when religion was expelled and in view of this ominous void thus created in a curriculum to which they had been so accustomed, the French, at once, created courses of a new kind for moral and civil instruction for every grade. They ransacked their own history and literature for stories illustrating exceptional and even dramatic acts of virtue and selected many moral and apt quotations to impress social duties and promote virtue. Fearing that conscience was not sufficiently infallible or strong, patriotism and the noble pagan sentiment of honor were appealed to also, the latter with great effect. There are many prizes, medals, public testimonials, special columns in the press

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<sup>1</sup> H. M. Boies: *The Science of Penology*. Putnam's, New York, 1901. pp. 559. See especially chapter 18—The Education of Children.

to commemorate all children who have done noble acts. Love and pride of country and the instincts of the true gentleman and lady are thus made into a kind of secular religion. All this is well and thus courses have already justified themselves, but they are not enough. Youth always has and always will need religion to tide it safely over the adolescent crisis of life, for it can be made to supply a yet far stronger incentive to virtue than the ideal of good citizenship or of honor, potent as these are.

The German method recognizes not only the aesthetic and the moral, but the intrinsic value of religious training, and has enforced religious instruction in the public schools for more than a generation on the following plan. About every child or its parents must elect near the beginning of the school course either Catholic, Lutheran or Jewish religious training. Each of these three churches nominate the teachers of its own faith who must, however, pass a stringent examination by the State which pays them as to their qualifications, and these teach in the school buildings, examine and look after the moral and religious needs of their pupils one or two half days per week, inculcating Scripture, church history, creeds, forms of worship and giving spiritual guidance enough to fit for confirmation. Thus, rabbi, priest, or clergyman has access to nearly all the school children, so that it is impossible for them to grow up in such dense ignorance of Scripture and religious matters as is increasingly prevalent here.

This scheme could easily be made practicable here for Jews and Catholics, but the dissident Protestant sects, despite several efforts, have not, so far, been able to agree as to the method or matter of instruction, so that in this respect the difficulties here are very similar to those encountered where mission boards representing different denominations have tried but failed to unify their work in heathen lands to avoid the stigma despite the injury that this insistence upon denominational differences is causing in both fields. Could all or the chief Protestant churches agree upon a course of religious training for public schools, the German scheme would be as workable here as it is there under an established church.

Failing this, we must abandon, finally, all thought of bringing public education again under religious influences, however generic, and take up the prodigious task which the French have faced of devising a national scheme of training in morals without the aid of religion on some ethical culture basis. The most sagacious school men, however, are now realizing, as never before, that education of the heart and life in right conduct must be made the chief goal of pedagogic endeavor. On this basis there is one line of effort now opening which seems

a promising foundation on which the churches of all creeds and the secular schools can heartily co-operate, and that is what a recent writer calls "the re-awakening of the physical conscience."<sup>1</sup> The last quarter of a century has witnessed a remarkable revival of interest in physical culture, college athletics, clubs in high and grammar schools, leagues like that of New York city with President Roosevelt at its head, hundreds of Sunday School athletic organizations, gymnasia, the Pope's hearty sanction (he having lately witnessed the contests of all the athletic societies of Italy in the Vatican gardens, become their patron and conferred 250 gold and silver medals) congresses of school hygiene, playgrounds (covering 75 acres in Chicago, 110 in Philadelphia, 200 in Boston, a single one in New York to cost \$2,500,000);—all these represent a new and immense movement extending over the entire civilized world, even to China and for women, where the movement has already brought forth imperial decrees forbidding the use of opium and foot-binding. In Japan as in Germany, under the influence of the Turner societies, the stature of the soldiers has actually increased from this cause, but what is more important is its effects upon the soul. Athleticism, plays and games rightly directed give a new sense of loyalty and heartiness, a healthy tone of emotional life, more patience, courage, fraternity and perhaps above all brings into operation a new love of personal purity of body and soul. This great tide of human culture already shows signs of the approach of a general "physical renaissance such as the world has only seen twice or perhaps thrice, and which preceded by about a generation the most brilliant periods in the intellectual history of mankind." Health means wholeness and holiness and is the best natural basis of the new practical Christianity. It means more enthusiasm of humanity, and this wisely directed unlocks ideals and wins the heart to the good, the beautiful and the true and does vastly more than our old modes of secular training ever dreamed of to give a clean soul in a clean body, and what better goal has religion than to make the body the temple of the living God?

Finally, the churches, while maintaining as long as they will their denominational differences of creed and forms of worship on Sunday, should now unite to formulate a programme of week-day education in the broadest sense of that now rapidly expanding word. Leaving the doctrines of the trinity, incarnation, revelation, miracles, salvation in another world and all other dogmas, however precious to believers, to be chiefly Lord's day matters, let the church waive all these distinctive doctrines during the week and seek ways and means

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<sup>1</sup> See Dr. R. C. Newton: Popular Science Monthly, August, 1907.

of concerted effort to resume some of its ancient function of the care and guidance of the souls of youth in practical morals and in personal enthusiasm for pure and true living on this earth. Open its doors to every possible *good* week-day use. By its long deterioration from insisting upon dogmas and its diminished interest in science, humanism, nationalism in the past, it forfeited to the State its natural function, and now the partial failure of the State to perform this supreme task of moralizing the rising generation affords the church a new and vast opportunity of resuming its lost functions. Putting aside all claims of ecclesiastical authority and every theological shibboleth, can we not join hands, animated by a simple but fervent love of man and by the crying moral needs of the present and the young, and set the world again an example of supreme service in a crisis of dire need? To do this we must abandon once and forever the old uncompromising spirit that demands all or nothing, and realizing that absolute truth and virtue are rarely attainable on this earth, understand that the second and even the twentieth best is vastly better than nothing and well worth doing. If the State will not have Scripture, the world's greatest inspiration of righteousness and its chief text-book in psychology, let us study the Bremen method of introducing carefully selected ethical extracts made up by religious men of the best proverbs and most inspiring classics and all Bibles of other religions. If we are not yet ready to attempt the methods of the German Simultan-schulen by which Catholics and Protestants seek to combine their pedagogic efforts in a few fundamentals, at least, let a few of the Protestant sects unite their efforts in the mission field and cease to maintain expensive sectarian organizations there and then let them try to denominationalize each of their colleges and seek, by so doing, to confirm, broaden and deepen their common Christian character. The State will never again tolerate any creed or confession in the school. Its religion is patriotism and the school is now its nursery as it was that of the church. Science will never assent to the dogmatic method, but Christianity should not be expurgated from the art, religion, history and humanities which it has done so much all these centuries to create and without which even they cannot be rightly understood and without some knowledge or feeling for which our children are like deaf mutes studying music. Better virtue without Christianity than Christianity without virtue, if such an antithesis were even conceivable. Let us, then, recognize the god of things as they are and accept the inevitable with joy and, according to the old stoic maxim, try to rise to the opportunity of leading this great impending movement for moral

education, more pressing and promising than anything in the history of schools for the last half century, and ourselves work out a programme, Godless and Bibleless though it must be in name, utilizing to the uttermost the sentiments of patriotism, honor, mutual help and social service, realizing that Christianity itself is not all ecclesiastical or theological, but that a purely secular week-day religion can and must now be wrought out, and that the detailed methods for doing so are now within sight and reach.

## PEDAGOGY—ITS TRUE VALUE IN EDUCATION<sup>1</sup>

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By G. STANLEY HALL

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The educational value of pedagogy which you have assigned me as a topic is a splendid and timely theme. I fear that college pedagogy has not wholly commended itself to high school principals and that perhaps no class of educators are on the whole quite so skeptical of its merits, or more initially averse to the claims which I wish to make for it, than are you. But believe me, it all depends upon the kind of pedagogy and how it is conceived and taught. There is a brand of it for which I share all your aversion and contempt (if that be not too strong a word), and that is the sort which I fear your position makes you see most of. But there is also a pedagogy which I hope to convince you is worthy of your highest respect. The difference between the good and the bad is immense, greater, I sometimes fancy, than exists in any other branch of education. The worst pedagogy, as *I* think, is that represented by a new class of college and university teachers who have been let loose within the past few years upon the high schools, public and private, in the East, but far more in the West, who in one pocket carry lists and testimonials of their graduates who seek positions as high school teachers and whom they wish to place, in the hot competition now existing between college teachers' bureaus, so as to have men holding their own diploma in high school positions. These men are also recruiting officers after your graduates to enlist them as freshmen, as well as being also travelling teachers' bureaus. They can often confer the right of admission by certificate and seek your patronage as feeders. They often address the school on the attractions and advantages of college life, and in some Western States visit parents and the boys themselves in vacation and occasionally are authorized to themselves grant exemptions from college fees to those whom they enlist. Sometimes they can even examine individually for admission. One of these professorlings of pedagogy in the far West told me last summer that within the year he had visited every high school in his State, which was a large one, and had a list of every boy likely to enter college in the next two years; that he had visited doubtful candidates in their homes and had the dogs set on

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<sup>1</sup>Address at Meeting of Head Masters' Association, New York City, Dec. 27, 1907.

him when his business was known and had been told, in at least one case, that similar representatives of three other rival institutions had called on the same errand within a week till the parents were minded not to let their son go to college at all, as it would seem to be selling him to the highest bidder. This was, let us hope, a very extreme and exceptional case in the far West. But you know what would now become of a college president, East or West, who, where bigness and numbers loom so large, failed to show an increase of attendance for several years, so that the situation is sometimes desperate. Nothing but large endowments can counteract it. Little is said about this work at the institutions which authorize it. When not in the field as colporters, these men spend enough of the year teaching education in the institutions they represent to secure for themselves professional standing there, but they are chosen chiefly for their ability as drummers, and for their power to persuade and make proselytes to the college faith. The growing magnitude of this work is indicated by the fact that last spring, vacancies for twenty-four such positions came unsought to my own personal knowledge. And so sudden and great is the demand that it is very hard to find the right man. There are those doing this work who might and who would *prefer* to do far better things, and as it is, some are really helpful in their work within academic walls in preparing intending teachers, but this function is too often brief, fragmentary and secondary.

2. Another smaller class of academic professors of pedagogy stay at home and devote their chief attention to secondary education, since it is here that the interests of their institution chiefly lie. They lecture about German gymnasia, Real-schulen, French Lycée, and English public schools, collect statistics of high schools, their growth and administration, the proportion and number of pupils taking each subject, etc. Their courses are open not only to students intending to enter upon the work of teaching, but are also often given after hours and on Saturdays that those actually in the harness may attend. These professors usually also characterize briefly the great philosophers of education from Plato down to Herbart and Spencer, and a very few of them have a word to say about the pedagogy of the different high school branches, but they usually accept the *status quo*. Some of them have lately a little something to say concerning the nature and needs of high school boys and girls or attempt to characterize the all important years of adolescence, the critical questions of which age focus in the high school. This class of professors, as I know them, are generally honest, industrious, faithful, and some of them are able, but their field, as they define or as it is prescribed, is narrow and

the soil of material is scanty, thin and poor. Their work is more or less superficial and they lack the courage or ability to do the deep subsoil plowing so cryingly needed here. Did they attempt it ever so ably, it would probably at first tend to divert and not to attract students, and alienate rather than win the good will of you masters and teachers. They are rarely in a position to advocate an educational policy at variance in any particular with that of the institution they serve, or with the present ideals and practices of the high school. They often protest that they have all the academic freedom they want, but either they are mistaken or love their fetters, or else lack the initiative to use the larger freedom needed here. The professor of economics, *e. g.*, is *free*, only not to criticise millionaire philanthropists who might endow. The professors of religion are free, only they must not raise any odium theologicum against the college, and so the professor of pedagogy is free; but he must not meddle with the policy of his institution which the president represents and he must stand in the closest rapport with all feeders. These professors, even the best of them, are still often thought somewhat inferior by their colleagues, for their academic standing is not yet fully established. Thus the types of college pedagogist you probably know most about work under limitations, whether felt or not. Fortunate indeed is he if his inner limitations leave him ignorant of the very existence of his claims. Every pedagogy professor who specializes on the high school can do something for you that is very valuable and well worth your time; but not very much, certainly never enough to be the basis for a doctor's degree. Two or three dozen well packed lectures at the most would give each novice about all that is worth while here. Some of you are already well on the way toward ample qualifications to fill such chairs yourselves, and in fact some of the best of such positions have been recruited from your ranks. You would probably all be safe in such chairs, for you have learned to do well under limitations. Of course some of these professors also undertake more or less of the functions of my first class of college drummers, for there is no hard and fast line of demarcation between the two classes. I think the consensus of faculty opinion is that this kind of work is more professional than cultural. Some normal schools, too, attempt to train high school teachers, but this is usually an affectation, for they rarely attract the ablest men, and where this is seriously attempted there is usually much confusion and waste. High school hygiene is another recent and fruitful topic here, and co-education might be, but is rarely discussed.

Before describing pedagogy as I conceive it, I must speak of another and by far the largest class of teachers of pedagogy,

namely, those in either college or normal schools that chiefly train teachers for grammar grades and superintendents and supervisors. Here, too, there are all kinds of merit and demerit. The most vicious of all types perhaps now in vogue is a kind of definition philosophy or psychology that fills the mind with empty words and phrases and with the conceit of knowledge; all form and no content. This still persists in some older normal schools, but is moribund and may be left here to the quiet extinction that awaits it, and which can come none too soon. Then come a few essential elements concerning school law, organization, relation of the teacher to the State and the parent, elements which, simple as they are, are really needed by the about 100,000 new recruits that enter the profession of teaching in this country every year. Then comes the methodology of the three *rs* and each of the other branches, a touch of it but not too much of it, lest we whip up the teachers' small modicum of knowledge into a froth that seems bulky because it is only syllabub, lest we analyze processes which analysis paralyzes, put method before matter. Something of the history of education and something about the child is taught here, and, perhaps best of all, is the new school hygiene, physical, mental and moral, so that the school may be in fact a temple of health. This, I take it, is about the order of value among the departments of elementary pedagogy. Hygiene is, perhaps, the most cultural of all these branches, or should be. Of course pedagogy for the grades is far older and therefore better developed than that for the high school. It is in this field, too, that most of the great pedagogues in its history have done their work, and of them most of the theorists have chiefly written. Here, too, method and matter are far more plastic than in the high school. Teachers have less knowledge and less complacency and there is more incessant reconstruction. The numbers of schools and teachers here is, of course, by far the largest, and there are some great open questions in which all are interested—age of attendance, compulsion, religious and moral training, taxation, how far the State should go in paternalism, etc., etc. Children, too, are more plastic, and now that the whole world goes to school, every problem of pedagogy is vitally economic, and in a republic primary education is the bulwark of the State and here nothing is so practical as a good theory.

But I hasten on, for I can hardly wait to nail up the thesis I wish not only to define but to convert you all to, which is that there is no department now represented in the college or the university that combines so many educational factors as pedagogy if rightly conceived and taught. Of course you smile and say that it is natural for every specialist to think his own men-

tal goods best, just as the sky seems highest over every one's head wherever on the round earth he may happen to stand. All I answer is—compare the subject when I have done with whatever branch you know best or esteem highest.

Pray listen and understand also when I say that the pedagogy I plead for is not fully represented anywhere, but is only like Milton's tawny lion pawing to get free from the glebe out of which it arose. It is not only possible but coming, and every single element of it has been tried and is now working well somewhere so that I idealize nothing, but only synthetize.

a. First of all I plead for the history of education in a broad sense, comprising all those processes by which the higher culture, religious, moral and mental, flow down from loftier to lower levels or from age to infancy and youth. It is history not of the origin but of the diffusion of learning and of virtue and of the effects of every kind of culture. It tells why the Chinese, though erudite, became stagnant; how and why Japan awoke; why Thibet slumbers on; why India was paralyzed by caste and by precocity and by the very wealth of its literature; it epitomizes the story of the development of the Old Testament and its cult; the incubation period and then the rise of Christianity and the burden of the new message and the response to it in the human soul; what Greece and Rome did for their boys, girls and adolescents and how they were inducted into manhood; what the great men of every age did directly for them and on what mental pabulum the larval period was fed. It has a pregnant if brief word concerning the founders of the great ethnic religions, Confucius, Buddha, Mahomet and the rest, and how and why they all spread. It rehearses the story of the church fathers, of the cathedral and cloistral schools, the rise of the universities, of the great secondary schools of the 16th and 17th centuries. This history has a wide range. It includes the kindergarten and also the university and would interest all students of all departments in all these grades of work. The High School needs to know the kindergarten as well as the grades. It passes in review the theories and treatment of children in various periods and races, and traces the origin of the modern school in the chief European lands and makes a special point of bringing information and interest up to the present year in each leading country. It is not restricted to regular schools alone but concerns itself also with the training of defectives, with charities, reformatory institutions, juvenile crime and however and whatever efforts have been made for the improvement of the young. Wherever these themes are at issue their historic pedagogy should be on hand. Junot's reform of education for the African child, four years of purely indigenous culture before anything English or European—

Leitner's work in the Punjab, also based on high indigenous culture—the story of the Kaffir child, the training of Indians, of aborigines the world over; how submerged races take up the white man's burden; child labor laws; the age of consent, etc., not forgetting the study of the different philosophies of education, for this is perhaps most useful of any, giving a wholesome professional spirit to the candidates for the teacher's office and it orients and gives novitiates respect for their calling. How I have myself felt the glow caught from a great teacher who explained Plato, Fichte, and the rest *en amore* till everything else in the world seemed to pale in zest beside the perfervid enthusiasm of humanity with which these master humanists wrought and taught. Such a course is hard work and for a life time of incessant toil on the professor's part. It has all been done, though perhaps never all of it by one man, but could be if he gave his life to it, and what kind of history can be more liberalizing or humanizing than that of culture, and what is better fitted to transcend the now progressively narrowing limitations of specialization than such a course? The expert colleagues of such a professor in faculties would naturally look a little askance and perhaps prate as they have done of universalogists, but this still is needed not only for teachers but for the general culture of all students. For myself, I defy the pedantry and affected thoroughness of narrow men who do not realize that broad views come before special ones in the order of development. If any expert says such a course must necessarily be superficial, I reply that superficiality has a very important place when the mind is all surface and has little depth. Such seeds as these grow in the shallowest soil, but can strike roots down to the very bottom of the deepest. Youth needs a diet of germs and to have its soul all grafted over with buds, to be spurred by hints that are not followed up. You may call this general culture history, if you wish, but there is more and more need of it as electives multiply and grow acuminated. It is the story of the growth of man in all times and climes, of his struggle against ignorance and toward knowledge, of efforts to help him.

b. Next in importance to history, I should place the study of childhood and youth. I cannot agree with my venerable friend, Dr. Harris, that general philosophy should be a part of pedagogy, nor would I teach psychology as a whole, which is far too vast a topic, but I would lay chief stress upon psychogenesis and hygiene. It is no longer necessary to urge that the teacher should know the child as well as the subject to be taught, or to insist that he does not and cannot know the child without special study. That battle has been fought and won all along the line. The psychologist has as much to teach

adults about the child's soul as the anatomist and physiologist has about its body.—Growth in height, weight, what favors and checks it, development of strength and dexterity, what helps and hinders it, health and the different diseases from infancy up to maturity, temptation, crime, vice, virtue, sex and its psychophysical metamorphosis, religion, associations, plays, games and exercises generally, the feelings for nature, society, sex and co-education—all these and many others are now great and growing expert questions, each with a vast literature of its own. But as this function of pedagogy for the high school is one on which I might easily and unwittingly bore you, I will forbear and pass to my third and final point.

All grades and topics of secondary education are now in crying need of larger periscopes. Educational values of all kinds of topics and methods and organization are the most vital themes of all, and will you permit me to add that in my opinion they are not sufficiently considered by secondary teachers, partly because they are so fortified and complacent in their respectability, so sheltered from innovations that come to them only from the college above and the grades below and so dependent on, if not subservient to, academic dictation as well as to the customs and traditions of the past that they have been proverbially the last to feel the great historic movements of reform. In view of the flood of new life that comes in at adolescence, more suddenly to American youth than to any others, the present relation should be exactly reversed and the high school should dictate to the college and say, "Here are our graduates. We have done what we deem best for their age and stage. Take them from our hands or leave them, but we must decide how to prepare youth for what the college offers," and the latter would soon enough come to terms. Teachers would no longer be content to be praised by their college masters as good and faithful servants and as mere fitters. They must prepare the average youth to leave school forever as the great majority do at the end of the course, as before, for no sophistry can identify the work of fitting for college and fitting for life. The public high school is the people's college and responsible to the tax-paying community and to the public, not to the college dons. If there must be college entrance examination boards, you should control them, and if certificates, you should issue them and take the onus and rise to the larger views and responsibilities involved. You are far more qualified to judge what is the greatest educational good to the greatest number than the cloistered academic specialist who now in the eastern part of this country dominates secondary education to an extent unknown in any other place or time in history, for in the West

and in every European land such obsession is unknown. It is a local and transient feature.

Let me merely name a few other problems of the higher high school pedagogy. One is that of feminization, since 60 per cent. of the American public high school pupils are girls, far more, of course, in the upper than in the lower grades, for boys drop out and girls stay. Even in private fitting schools, it is now the mother or the aunt, as I have learned from correspondence with a number of them, that more often places the boys in the school, visits them and is the medium of communication between the home and the schools. Girls, as every one knows, are more mature at the same age than boys, but they take less kindly and later to specialization, are more content to do what other girls do, while boys yearn to do something for and by themselves that no one else knows or does in order to express their individuality. The whole vast cultural problem of co-education in the high school is now opening here, not only in frequentation, but in topics and methods for the public high schools seem slowly tending to become girls' schools. To even discuss this question intelligently, one must know much of the psychology, physiology and sociology of sex in its broader aspects, and be able to correlate this question with the larger one of marriage, birth rate, public hygiene and the more specific problems of sex, and surely here we should all be open-minded to both sides of the great discussion that impends. Girls are more generic in every aspect of body and soul. They are better representatives of the race as a whole and closer to it than males. Sex differences run deeper and are far more pervasive than we have thought, and surely we should all be interested in and informed on both sides of this great coming discussion.

Again, there is the problem of English, real knowledge of which half a dozen consensuses agree is now on the whole declining. At any rate, all admit that it is in a very unsatisfactory condition. To find the causes and cures, one must study broadly the child's whole linguistic environment, inquire why slang seems now the *lingua franca* of youth, how the sentence sense develops, why the long Latinized sentence of Macaulay, Addison, Burke and the rest fit the operations of the youthful mind as Saul's armor fitted David, and in general study some of the deepest problems of the individual and of racial speech development including especially the relations between the genetic psychology of language, which seems to be the only real grammar of our grammarless essentially Anglo-Saxon terminology. Ever since parsing was discredited and Latinized translation English came in, we have been wandering with no certain orientation.

Again, there is high school physics, chosen half a generation

ago as the entering wedge of a larger dispensation of science for the secondary school and on which professors of this branch have lavished so much painstaking care and published so many text-books and courses, while despite all these promoters the subject has steadily declined until to-day only between seven and eight per cent. of high school boys take it at all in any given year. Here, the larger pedagogic view must take into account the historic development of this subject before it was so dominated by mathematics, must weigh the natural interest of boys in scientific toys, the fact that many libraries report that more of them read the *Scientific American* and its supplement than any other journal, must weigh the value of the lives of the great physicists and of all its popular aspects. Argentina is now seeking to develop a secondary course, making such large use of the apparatus of conjurors and of scientific toys that the course might almost be said to be based upon these.

Then, too, is the burning question of Latin which has gone up by leaps and bounds till between 50 and 60 per cent. of all public high school pupils in the country take it with the result that the average attainment in Latin, despite all the new methods, appears to be declining. At any rate, results of teaching this department are, on the average, as indicated by Conradi's statistics immensely inferior to those attained in European schools where teachers teach and are not content to be mere lesson setters and hearers, exacters of work and markers. Several studies indicate that Latin and algebra, which are so eagerly begun because they seem to mark the beginning of the higher education and give a sense of having crossed the Rubicon between the learned and the unlearned, soon lose their charm, and that one important cause why boys drop out up the grades is because of mental inanition and dissatisfaction with a study so formal and which fits for almost nothing in life save teaching.

So of modern languages. This country has suddenly become a world power and stepped out into a larger cosmic horizon and our international rapport has widened as political and industrial functions have expanded. Meanwhile, French and German have increased very slightly indeed in the high school during the last ten years and Spanish, for which there is such a vast and rapidly growing demand from the South American trade, from Mexico, our relations in the Gulf and in the Philippines, has scarcely made the faintest trace upon the curriculum of the high school. I point to the fact that French and German are still taken by so very few as compared with the traditional topics, after algebra and Latin as another indication how the modern high school is isolated from the vital needs of the new era upon which we have entered.

Now I have lifted up my feeble voice in recent years before associations of high school teachers in English, Latin, physics and modern languages at length in the direction here indicated, but it is only *vox clamantis in deserto*, and the reason that nothing is done is because the problem is so great that more and vastly abler men than I are needed in each of these fields with time to study all the broader aspects of these themes, so I pray you not to judge pedagogy by what we pedagogists have done so far or entirely by what we can do, but to realize that there is a vast field and an urgent need far beyond our power. What immensely salutary and epoch-making work you might accomplish if you were to rise to the present opportunity and organize to study different aspects of the relation of the high school to the living, palpitating, cultural, industrial and political present! Educational statesmanship, it has been said, is that in which all statesmanship culminates. Why do you not yourselves grapple with these questions without waiting for college or university initiative or leadership? You more than any others are the real masters of the present educational situation if you would but realize it, and when I think what you could do, I begin at my time of life to see visions and you younger men should dream dreams and work with those ideals which are the best materials of prophecy and show again to the educational world that there is nothing so practical as good ideals which are in fact only the most economic working plans.

Perhaps pedagogy ought not to be a specialty at all, but is too great and complex, and had better be regarded as the culmination of all culture, for at bottom science, art, literature, technology as well as home, society and religion are valuable only in so far as they contribute to bring the human race to an ever high and more complete maturity. Man to-day is only the embryo of the superman that is to be, and the worth of all of these institutions is measured by what they do for the great cloud of witnesses who are to people this earth far more densely long after we are dust. Thus I hope you agree with me that pedagogy, as it ought to be conceived, is the art of applying culture to secure the most normal and maximal development of rising generations at all stages of life, and that nothing has worth save in so far as it contributes to this supreme end.

## THE MEDICAL PROFESSION AND CHILDREN<sup>1</sup>

By G. STANLEY HALL

Those were indeed remarkable days in which this institution was born. Thomas Jefferson was then midway in his second term as president of the United States. There were seventeen states in the Union, and Ohio, the last to be admitted, was four years old. The Mississippi River had been our western boundary till 1803, when the Louisiana Purchase more than doubled the area of the Republic. Only a year before your charter was granted, Lewis and Clark had returned from their 8,000 mile expedition exploring and establishing our claim to the Oregon region and making the Pacific Ocean our western boundary. Two years before, at the Battle of Trafalgar, the power of Spain in the New World as well as in the Old began to totter toward its fall and the way was prepared for the acquisition of Florida and the great Southwest which Aaron Burr had the sagacity to anticipate by what was charged to be a conspiracy, of which, however, he was acquitted in 1807. This and the Embargo Act, which closed all our ports to foreign trade and was repealed the same year, just a century ago, had crippled the East so that statesmen feared for the future predominance of the Atlantic States in view of the vast future they foresaw for the West, but also in 1807 Fulton's first steamer, the Clermont, made its first trip up the Hudson to Albany in thirty-two hours. Congress, too, had just provided for a national road from Cumberland, Maryland, to Ohio. The Barbary Pirates had been humiliated, the Chesapeake Incident and the Proclamation of 1807 ordering British armed vessels to leave our waters and other events leading on to the War of 1812;—these laid the foundations of our naval power and contributed to the supremacy of the eastern states and to consolidate the North and the South under the so-called Democratic Republican Party which had elected the great commoner of Monticello to his second term and which upheld his magnificent statescraft which culminated in his national education policy by which the foundations of your institution were influenced, if not indeed directly inspired.

You were the fifth, in time, of the 152 medical schools now chartered in this country, large and small, some alas, very

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<sup>1</sup> Address at Centennial of the Medical School of the University of Maryland, May 30, 1907.

small in every sense of that pregnant diminutive. Baltimore had then a population of only 40,000 and you had already been struggling with a small organized faculty since 1807. Beginning with the graduating class of five in 1810, you will soon have 6,000 graduates in medicine from all parts of the country, many of them filling important positions in other states.

In quality and leadership, your record, too, is a proud one, showing that your helmsmen have held their tiller true between the Scylla of conservatism and the Charybdis of too radical progress. You were the first institution in the land to compel dissection of the cadaver, to give instruction in dentistry, and to establish independent clinics for the diseases of women and children, and for eye and ear troubles, and one of the first to establish a medical library, to teach hygiene and medical jurisprudence, and to provide clinical instruction in your own hospitals, open at all times to students.

Your classic old building, begun in 1812, which was long the most imposing architectural installation the profession could show in America, federation with the historic St. John's College at Annapolis, now under the able leadership of President Fell, the re-creation of the school of law in 1869, under the masterful hand of Professor Poe, the addition of a dental department in 1882, the affiliation of the Maryland College of Pharmacy, then sixty years old, in 1904:—these are milestones of an indeed unique progress by which a University with over 1,000 students from Baltimore alone has developed around the nucleus of a medical school, as in Salerno, the oldest of the mediaeval universities. And your history as written by Cordell<sup>1</sup> and by Steiner,<sup>2</sup> is a valuable contribution to the educational records of the country's progress. Thus it is that you have kept pace with the marvellous advance of the country during the century, throughout which progress has been the dominant note.

In no department of life or thought, however, has the advance been greater than in the field of the theory and practice of medicine, and what contrasts are greater than those between methods in vogue when you began and now? Since then the microscope has created half a dozen sciences of objects, the existence of which was almost unknown a century ago, but which are most vital for life, health, reproduction and disease, sciences which have re-created both interpretation and treatment of symptoms; chemistry has become, in the language of one of its

<sup>1</sup>Cordell, E. F.: *Historical Sketch of the University of Maryland*. Friedenwald, Baltimore, 1891. pp. 218.

<sup>2</sup>Steiner, B. C.: *University Education in Maryland*. Johns Hopkins, 1891.

experts, less a science than a group of sciences, and nowhere has their service been greater than to medicine. Anæsthetics, antisepsis, antitoxins, the ophthalmoscope, the stethoscope, the long war over the cadaver and the later one over duly controlled vivisection; all these things and many more have widened the scope and increased the efficacy and therefore prolonged the period needful for preparation for your profession. In view of all this, it is no wonder that Billroth urged that the history of medicine should be taught in every university as a part of the world's culture history. But a stranger cannot do justice to your history or a layman to the progress of medical science, and so, for the time allotted me, I venture to invite your attention to a few points in the broad field of social therapeutics which are of common interest to the physician and the scientific psychologist.

I. The first of these is the growing tendency to celibate life. From an exhaustive study of the statistics of the graduates of nine of our oldest colleges for men and of four for women it appears that ten years after graduation about one-fourth of the men and one-half of the women remain unmarried.<sup>1</sup> In our grandfather's days marriage was early and was contracted joyfully, almost as a matter of course, but now not only in our land, but in every country of western Europe, especially among those in easy circumstances, young men and women delay, deliberate, weigh the attractions of single and of wedded life, consider social and even pecuniary pros and cons till the golden dawn of youth advances to the high noon of maturity and, in Herbert Spencer's phrase, "The motives that make for individuation become too strong for those that make for genesis." The love of freedom, the desire to escape domestic responsibilities, club life, the increasing expense—all such motives should be as nothing to the fulfilment of the great laws of nature and of God. I am no advocate of most of the premature or unpractical measures that have been proposed, the taxation of bachelors, Galton's scheme of endowing wedlock for those inclined and pronounced fit by a commission, or even of forbidding it to any considerable classes in the community, despite the lessons of the Jukes and the Binswangers, Margarets, Aubry's Kerangel family and the tribe of Ishmael, least of all of any fantastic and demoralizing scheme of the trial marriage order, but I do maintain that every man without the handicap of grave hereditary disease and with even a comfortable wage should marry, and that our girls should be trained for home life rather than to secretly nurse the ideals of

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<sup>1</sup> See "Marriage and Fecundity of College Men and Women," by G. Stanley Hall and Dr. Theodate L. Smith. *Pedagogical Seminary*, 1903, Vol. 10, p. 275 *et seq.*

single blessedness and to ape mannish ways, and that even those thus trained will thereby be best fitted for self-support, should that be their fate. If the cynical views of the wedded state too rife in the press and in conversation shake the healthful instinctive faith that joys are doubled and troubles halved, then I would even urge that as it is the citizen's duty to pay taxes and, if able-bodied, to take up arms if his country's life is at stake, so wedlock is a social, patriotic and religious duty which it should be a point of honor not to shirk. I plead for no rejuvenated platonic state with a tribunal before which every vigorous man from thirty on must seek certificate or exemption, yet even this has been advocated by serious publicists in Europe where more and better soldiers as well as toilers are wanted. I do not argue the case which many of our leading Catholic brethren are now pleading at Rome, that the clergy be no longer forbidden, but should be encouraged to marry, for the State and the church both need the offspring such men would give to the world. When man has as fully domesticated himself by civilization as he has domesticated the animals he rears with such wisdom and care, the voice of the medical profession will be heard upon this problem of the national and racial economy, for nothing in the world is quite so precious as heredity, and those with most ground for pride in their own ancestry should feel most keenly their obligations to transmit the sacred torch of life undimmed to future generations.

2. Close to this problem lies that of fecundity versus race suicide. President Eliot long ago showed that Harvard graduates did not reproduce their own numbers, so that if all the sons they rear went to Harvard that institution would decline, and the same is proven in the case of at least seven other northern colleges and is true to a still greater degree of women graduates. In France, the birthrate has for a long time but little exceeded the rate of death, so that that country is nearly at a standstill. For the white races throughout Australasia, the decline of birth is more rapid than in any other part of the world where such statistics are kept, although it has not yet quite reached the critical point of equilibrium. In England itself, which once stood near the head of all lands in fecundity, progressive sterility is now so marked as to cause anxious forebodings and medical and parliamentary commissions and various societies have been organized to study and to stem this downward tendency. In Italy, Russia and even in prolific Germany, the same decline is more or less pronounced, for the birthrate is tending toward the ominous ratio of twenty per thousand and various groups of learned, patriotic and philanthropic men, organized and unorganized, are pondering the causes in our own country. So many official voices have

spoken that eugenic clubs and Fabian societies are sure to be heard from by the great public in the very near future. This tendency is most marked among the old families of New England in the region of abandoned farms and decadent, moribund stirps. Those most prolific in this country were themselves or their parents or grandfathers were born in Europe. The most rapid increase is among the poorer classes and among those who inherited the promise of the great covenant of Jehovah with Abraham that if they would do his will their seed should be as the stars of heaven for multitude. Progressive sterility, Gibbon tells us, attended the decline and fall of ancient Rome, as it does the extinction of the many moribund stocks of primitive races. Sidney Webb marshals a mass of evidence to show that to-day the chief cause of this decline is "deliberate volition," and the late head of the Bureau of Statistics and Labor says that "This cause has more effect in reducing our population than war, pestilence, and all other causes combined." The old idea of large families has given place to that of small ones, and that of early to that of late child-bearing, so that, as Chandler has shown, the interval between generations is increasing, especially among the upper classes, while in the lower there is one generation more every two hundred years than among the former. Bohannon<sup>1</sup> and others have described the pathos of the only child in a family whose parents under the mistaken ideal expressed by the slogan *unus sed leo* lavish upon one child all the care meant to be diffused upon many in the effort to atone by nurture for the enfeeblement of nature and the thwarting of her deepest instincts. Heredity is not the only most precious and ancient form of all wealth and worth, but Huxley said that one ounce of it was worth a ton of education and modern dramas, and novels galore represent posterity as a great cloud of witnesses calling to us, demanding the right to be born and well born, with the desire to revere us as we revere our ancestors. The old families of the South, despite the hardships of the last generation and a half, have an enviable record compared with us of the old Yankee stock. It would be hard, indeed, if we descendants of the Puritans ever have to offer our *morituri salutamus* to you, the offspring of the cavaliers, but if that day ever dawns, we must admit that it is you and not us who have inherited the promise. For the true test of all the influence that make up civilization, as of domestication, is the producing and the bringing to fullest maturity of the best and most children. Real struggle for existence to-day is the struggle whose offspring should inherit the world and wield the ac-

<sup>1</sup>Bohannon, Eugene W.: *The Only Child in the Family.* *Pedagogical Seminary*, April 1, 1899, Vol. 5, p. 475-96.

cumulated resources of civilization in the far future. The 1,500 millions that people the earth to-day are but a handful to those who have lived and also to those who shall crowd this teeming world when we are all dead.

3. But it is not enough to bear children; they must live and thrive. Amidst all the sin and woe of the world to-day, I know nothing more pathetic than the bitter cry of infants for milk, pure, fresh, abundant, and, above all, natural. In England and Wales, where 120,000 infants die each year, Newman<sup>1</sup> has shown that deaths during the first year are about five times as numerous among children fed upon cow's milk and artificial and proprietary foods as among those that are breast-fed. Bunge's<sup>2</sup> statistics show that in Berlin, despite the assertions of many physicians to the contrary, mortality is six times as great among those not fed at the breast as among those that are. In many cities of the Old and a few of the New World, comprehensive, special studies point to the same result, so that it is a conservative statement to say that those artificially fed are from three to six times as likely to die before the age of one year as those normally nourished. In Middle Europe, about one-half of the mothers are not able to nurse their children sufficiently during the first nine months of life, and this sad proportion is increasing, and of Bunge's 1,629 cases, mothers taken at random, two-thirds were unable. Röse's statistics are most comprehensive. Out of 157,000 individuals in his tables, those reared at the breast were not only more viable in the early stages of life, but they were heavier and taller at all stages of life. Far less were rejected as unavailable for the army and their longevity was greater. Not only this, but every three months of natural nursing increased each one of these advantages. So strong is German sentiment upon this subject that a law has been drafted, though not yet passed, heavily fining not only all mothers who can but will not nurse their offspring, but also those who advise them not to do so. It is very difficult to determine the proportion between genuine inability and disinclination. There is a certain stage when the best mother is the best nurse and when everything should be subordinate to this lacteal function. Without it not only physical but affectional motherhood is incomplete in its higher qualities. A race that thus neglects posterity has already begun to decline and even anthropometry shows that children thus handicapped in the earliest stage of their development suffer not only physical but mental and moral

<sup>1</sup>Infant Mortality, a social problem. Methuen, London, 1906. 326 p.

<sup>2</sup>Die zunehmende Unfähigkeit der Frauen ihre Kinder zu stillen.  
3rd ed. Reinhardt, München, 1903. 32 p.

disadvantages throughout their lives. They are especially more prone to rickets and dental caries and to summer diarrhoeas, the mortality from which latter seems to be from twelve to eighteen times as great for those artificially fed. The power of adequate lactation once lost by a mother is rarely regained in her posterity. There is now a general consensus among experts who have given this subject most attention that the chief cause of this first stage of sterility, for such it is, is voluntary, and this ominous social danger of our day, which the limited statistics at hand indicate, is greater in this country than in Europe, should be resisted by physicians by every means at their disposal.

This physiological separation from the mother at birth has often been compared in its effects to premature delivery, and it is becoming a distinctive feature of civilization, for the savage mother has abundant milk and to spare.

If infants of the future must be thus parted from their mother and the maternal function thus abridged and dwarfed, while our offspring become parasites of the cow or dependent upon proprietary foods which are of vegetable and not of animal origin, we must look well to the composition of the latter and control the transit of the former at every stage from the cow to the infant's mouth. Organic chemistry is yet in its infancy and is far from being able to reproduce such compounds as the lacteal fluid, which even Bunge calls one of the most complex and marvellous of all the products of nature containing in it everything that the body and soul of the child needs for the first year of life. Milk, as every one knows, is subject to very many kinds both of pollution and infection, and is a veritable trap for bacteria. No pasteurization or sterilization, condensation or any other process can give it anywhere near the value of mother's milk, whatever physicians who have not followed these recent studies or who are too complaisant with their patient's inclinations may say. On the infant's side, too, all these substitutes for nature's provision are more easily imbibed with too little effort and are often too abundant, so that overfeeding is more liable and the stomach, gorged with starchy food and with animal milk, with far too large a proportion of some ingredients and too little of others, readily becomes delicate and sensitive and the curve of mortality sometimes strikes upward in the sultry days of August several scores of points on the percentile grade. We have learned to prolong the average length of life among adults, have greatly lessened the death rate from various diseases, but infant mortality has not only not declined, but has slowly and steadily increased in all countries where such statistics are kept since the eighties of the last century. Thus, our infants cry and far too often die

for want of the food which nature has so marvellously prepared to meet their needs. You all know the new demands now urged upon many and adopted by some American cities of assuming as complete control of the milk as of the water supply and not only putting it up in suitable quantities for each meal, but giving it out at free public dispensaries to all who need it, and even providing nurses gratis to go about and teach its use, as well as the care of new born infants generally. After weaning and during all the growing years no food is probably more conducive to growth than an abundance of fresh cow's milk, and its adulteration or pollution is a crime without a name committed against childhood. The war for pure country milk, in cities is spreading to-day over the whole civilized world, all the more that the human supply is failing and it is now one of the most important problems of national health and prosperity. It should be one of the first items in the bill of rights for childhood.

4. When the child begins to pass from the home to the street or school, it no less needs the care of the new higher social medicine. Urban life is especially hard on childhood which needs the country brought to it in playgrounds and parks;—and every possible sunny, grassy, sandy, open space counts for increase of health and even life. If the very grave space of each needlessly dead city child were to be added to the play space of the living, there would soon be breathing room enough for exercises, games and gambols. Do I go too far or speak rashly if I suggest that what a municipality does for the health of its children is now a good measure of the standing and the influence of the medical profession in it? Surely, reduced Saturday and other holiday car fares to suburbs and parks, with as much free play over the grass as it will bear (for to what higher use can a good lawn be put?) open school yards every daylight hour when school is not in session, simple public out-of-door gymnastic apparatus and sand piles, the utilization of all unused lots where population is densest, public baths for children in summer and in winter, the opening of spacious private grounds to the children of the neighborhood at stated intervals, spacious sheds where children can play in bad weather, roof playgrounds, crèches and nurseries for young children of mothers away at work;—all these and more are now institutions of the new religion of health of which the physician is priest. These installations now bid fair to take their place, besides lying-in and children's hospitals, orphan houses, institutions for defectives and so forth, and what in all the world is more worthy of love and service than the bodies and souls of the children who bear our name and will soon take our places in the world's work?

The doctor now follows the child into the school, and not only tests eyes and ears, looks for adenoids, anaemia, chlorosis, curvatures, measures and weighs, detects dullards and subnormals, perhaps has a tiny health book open for each child, with the co-operation of parents and teachers discovers infectious diseases in their early stages and removes those who are sources of contagion. He not only selects sites for school-houses, roomy, high, well drained, provides sufficient lighting and heating, ventilation, but now studies with great detail mental economy in methods of teaching, suggests the length and hour of the day of the hardest lessons, helps to keep off strain, over-pressure and fatigue and in general strives to make school buildings palaces of health and the curriculum a wholesome gymnastic exercise for strengthening sound mentality. The medical inspection of schools now extends in some places not only to every schoolroom, but to every child, whether in day or evening school, and teacher and pupil no longer dread, but welcome, the physician and he no longer indulges in un-discriminating and wholesale criticism of schools as the chief cause of hygienic defects, whether of individuals or in the community, and the parent welcomes his influence as it penetrates into the home.

5. Lastly, at puberty and through adolescence, or from the dawn of the teens into the early twenties another new field has lately opened rather suddenly before the physician, which may ere long become a specialty, as pediatrics has long been. The advent of this era is marked by all-sided mental and physical changes and there are new liabilities to disease and grave moral dangers unknown before. *Dementia praecox*, whatever else it is, is, at least, degeneration following arrest. The energies of growth are not sufficient for the full development which is due at this nascent period of man's higher life when nature normally builds a new and splendid story upon the far older and simpler foundation of childhood. The church has treated this stage of life by the cult of confirmation and conversion, and man is indeed born anew, for he now passes from the individual selfish life into the large one of the race and altruism and self-sacrifice are now normally at their very best. But the physician now has a wider and almost pastoral function to youth, to help keep them pure, to teach them that true honor is at bottom loyalty to the unborn, to shield them from the quacks that play upon this callow age with shameless advertisements, which too many newspapers admit, to assuage the fears, often grave but happily mostly, though not always, groundless, that sometimes sap the courage and zest of young men for years, fears that spring from ignorance and are removed by a little knowledge as by magic. I have collected nearly six

score pamphlets and books addressed to boys near the dawn of manhood, all well meant, a very few concise, direct and admirable, but mostly prolix, sometimes prudish and fairly infectious with self-consciousness. What most boys need is a very plain and very brief but always personal talk, perhaps one a year for a few years, from a physician who has some native fatherhood and a little philosophy in his soul and who has given careful attention to this subject. Most American boys reach this critical period singularly well posted in what they should not know about it and still more curiously ignorant of what it is important for them to know. We do seem at last approaching a period of sanity in the pedagogy of secret vice and the old extravagance, insincerity and hysteria about it is giving place to true knowledge and to common honesty. The general reading public now know, thanks to a few physicians who not only have the facts, but have felt the social duty of popularizing them, something of the nature and extent of the venereal peril, and we have been told how to approach our sons upon this shyest of subject at the shyest of all ages. There can be little doubt that since the day of primitive man the age of sexual maturity has been increased, and the later it came, the more the educational period lengthened. Despite the tendencies of city life to precocity and the reversal of this tendency, it is vital for the future of man that the prepubescent stage be not shortened, but prolonged by every available device of hygiene and regimen. Its vulnerabilities make it the most dangerous and its higher possibilities make it the golden age of human life. If one tithe of its dreams are realized in later life, the day of the superman is sure to come.

But on an occasion like this, one can but barely hint of themes so vast and momentous for the public weal. Let us hope that medical science is to-day, despite all its achievements, only in this golden age of promise. If we judged the future by the past, by the end of another century our most advanced knowledge would seem crude and most cherished ideals faint hearted. Because no profession rests so solidly upon the foundations of modern science, none has a better right to expect great things for itself in the future, and none can render such service in developing men of a higher type who will be able to realize high ideals in all departments of human life.

## SUNDAY OBSERVANCE<sup>1</sup>

By G. STANLEY HALL

The origin of all seventh day observances lies far back of Hebrew or any other history and is found in the worship of the moon, our nearest celestial neighbor, which the heart not only of the lover and the poet, but of every man, woman and child, still adores. Next to day and night and change of seasons that the sun controls, the luna month of 28 days is most marked in the life of man and has cadenced its rhythm into the physiology not only of women, but of men, and made cycles that are more or less marked in disease, in crime, suicide and insanity, so that our life, body and soul, is punctuated with its periods. Its four quarters, new or crescent, half, full and reverse crescent, the day of each evoking special devotions in ancient India, Egypt and wherever luna worship has prevailed, made the week observed among nearly all primitive people long before the Jewish race appeared upon the stage of history. Religion, which measured time by seven day groups has been not only one of the oldest but one of the most universal forms of pagan piety, and this cult has been elaborately developed with deities, temples, sacrifices, feasts and festivals among every one of the great nations with which the Jews came in contact from the time they first became a nomad tribe. About the middle of the ninth century B. C., in their very earliest recorded code, the Israelites adopted the seventh day and were exhorted to keep it holy, especially in the critical seasons of seed sowing and harvest when primitive man always felt most deeply his relation to the divine powers that presided over crops on which life itself depended. Just before the exile, the people's code advocated Sabbath keeping for a new reason, viz., because God had brought them from the Egyptian captivity, so that it now became a national independence day. It was man's day, but with no penalty for violation. Still later Ezekiel commanded its observation for another reason and gave it another meaning, viz., as a sign between Jehovah and Israel, so that it stood for the great covenant. Finally, after the return from Babylon, rest was enjoined because on that day Jehovah rested from the work of creation. Its new name—Sabbath—literally means rest, and it was interpreted as apply-

<sup>1</sup> Address at the N. E. Sabbath League Meeting, Worcester, January 26, 1908.

ing not only to man, but to beasts. It was now God's day and its violation was made penal. Then came Jesus spiritualizing the rabbinical Sabbath with the precept that it was made for man and not man for it. After His death still another sanction was added, for it became the day of the resurrection. Henceforth the Jewish Sabbath was abolished and became a day of memory and of joy for the outpouring of the Holy Spirit which marked the beginning of the world-wide promulgation of the gladdest of all glad tidings, that death, the great enemy of man, was conquered. The Council of 54 A. D., expressly exempted Gentiles from the laws of Moses and sacrifice, and the observance of the day was not legally mandatory for a time until Paul established the Lord's Day as a day of worship and made it to some extent a new institution not resting on the fourth commandment, but on the divine law. It was a day sacred to Jesus. Not until the fourth or sixth century was rest from labor required, and even then its sanctity was for some generations no greater than that of other holy days. It was the reformers, before and after the reformation, who had to seek another authority than that of the church on matters of religious life, who went back to the old Jewish Sabbath, and thus in course of time the Puritan Sabbath, under the shadow of which we still live arose, while the Sabbath of continental Europe remains more nearly that of mediæval Catholicism.

Thus the seventh day has persisted through a very checkered history at first, a purely lunar, a pagan day of feasting and joy, adopted by the ancient Jews, made sacred first to their independence, then to the covenant, then a rest day with most usual activities tabooed, Jesus' rescue of it for man, its transformation into a glad memorial of the resurrection, then of the Holy Spirit, later, the slow evolution of worship upon that day, its gradual emergence into prominence above that of other sacred days, and last of all the Puritan Sunday that sought to restore that of the Talmud.<sup>1</sup> From this very meagre outline we can realize on what deep and ancient and manifold foundations our Sunday rests, what diversity of both sanctions and interpretations it has passed through in different ages, sects and lands, and all these must be borne in mind by all who deal with the great problem of its current interpretation. This brings me to the sole point which I wish to urge which is, that if Sunday had no history and there were no divine sanctions, no fourth commandment or even Bible, church or Christianity, we should still need to observe one day in seven for reasons

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<sup>1</sup> Scientific Basis of Sabbath and Sunday, by Robert John Floody. Turner & Co., Boston, 1900. pp. 359.

based upon the nature and needs of man's body and soul, and that it is a vital point of race hygiene for all peoples who would attain or preserve the higher levels of civilization.

I cannot speak here of those antique sex prescriptions and taboos or of the nameless phallic rites so elaborately associated with many of the old forms of moon worship, save to say that the seventh, fourteenth, twenty-first and twenty-eighth day have, from time immemorial, been held peculiarly sacred to posterity, to heredity, to love in its higher, though, alas, too often in its lowest, forms. Thus among the most ancient associations transmitted to us from the past are those of the day hallowed for each generation to the cloud of witnesses which in the future are to spring from their loins. It is not without significance in this connection that several eminent biologists have suggested that for wedded adults the great theme of the transmission of life, the evils that threaten it and the duties that it enjoins might be a fruitful theme of Sunday meditation, for this function is at bottom the supreme test of the value of every human institution and of moral good, for here virtue and vice have their chief citadel, while just now these themes are being everywhere forced upon the attention of the world with a plainness and urgency without parallel in history.

As a day of rest, Sunday is also now reinforced for the individual as never before. Just in proportion as life grows tense and strenuous there is a weekly as well as a daily fatigue, and even the normal night's sleep does not wholly repair the wear and waste of the day, so that the curve of recuperation sags as the week of working days advances. Over and over again employers of labor have testified to the economy of the seventh day of rest, that the quality and quantity of industrial outputs were increased thereby, despite the initial Monday decline in efficiency often also noted. As long ago as 1853, 641 British physicians and many other societies of learned men memorialized Parliament that both brain and muscle workers needed about one day in seven for supplementary rest in addition to that of nights in order to maintain their maximal vigor, the tenth day which the French revolutionists substituted being too long and the fifth day being too short an interval. Fatigue is one of the most insidious foes of modern life. Exhaustion weakens all the defences of the human system which nature so abundantly provides against the hosts of bacteria always entering it, and which a rested body can so easily destroy under usual conditions. Fatigue is the mother of many diseases, some of which are only intensified forms of it. Nerve and brain stress and manifold forms of neurasthenia are greatly augmented by the growing specialization of industry because a single part of the organism is overworked and other parts go

without sufficient exercise. Thus, as one of its functions, Sunday must relieve the overworked and set into action the over-rested parts and functions of our frame. Sunday must thus bring relief from the narrow rutty activities of the week, and let us be again whole men and women and thus it should make for breadth, humanistic culture and become a hygienic philosophic institution. Rest for healthful people is less idleness and inactivity than it is change and recreation, for diversion positively helps to the restoration of the overwrought and frayed elements of soul and body.

In all the answers to stated questions which Hylan<sup>1</sup> collected from all sorts and conditions of people as to what they got and wanted from Sunday, rest and recreation stood first and hardly one desired to continue the usual week-day vocations. Most wanted to look forward, backward and around in a larger, higher way, to rise, to front the great elemental questions of life, duty, family and social relations, to forget sordid cares and reinforce the higher life by communion with the best factors in their environment, to be again whole men and women; and whole means healthful and holy.

To this end it seems to us plain that libraries, reading rooms, museums, art galleries and all parks, and every possible access to nature should be open on Sunday, at least a part of it, with all suitable precautions, and that Sunday newspapers, which are truly such, should be favored and not discouraged; that lectures, concerts and good music indoors and out of doors, in its season, should be provided, and that the purer forms of recreation and exercise are entirely permissible, for these make for race advancement, while, of course, everything that tends towards deterioration, moral and physical, should be rigidly suppressed. The so-called necessary work of steam and electric railroads, mails, freight transportation, unloading of, at least, all but perishable cargoes, harvesting in seasons of stress, most theatrical exhibitions as theatres are, all the crasser amusements and everything that tempts to evil should, of course, be minimized, and if in Sunday legislation the choice is clearly between two evils, we should often not hesitate to choose the least, though it contain evil, than to forbid both by laws which it is impossible to enforce. The great and growing majority who do not stately attend church have their rights, and as we cannot revive the blue laws, we must not legislate with the indirect design of corralling outsiders into the church by making them uncomfortable outside it.

For this class and for all discussion of the question, it is im-

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<sup>1</sup>Public Worship: A study in the psychology of Religion. By John P. Hylan. Open Court Pub. Co., Chicago, 1901. pp. 94.

portant to consider what it is now the custom to call Sunday feeling. Copious returns from large numbers of people show how deep and strong is the instinct to make the whole regimen of Sunday as different as possible from that of the week. Many specified as Sunday charms, freedom from all slavery to the clock, better and more leisurely toilets and meals, the hush of noise on the deserted street, the greatly intensified charm of the sky, sunshine, trees, fields, pleasant morning anticipations for the day, more zest for reading and perhaps study, converse with friends, calls, visits, music, correspondence as well as rest pure and simple, for body and mind. These supervene of themselves to most on Sunday morning, and surely all those who cultivate these things in any wholesome way are with us and not against us.

But on this foundation, which must be kept deep and strong, Christianity has built a magnificent superstructure of worship. It has reared homes for God where He keeps open doors to receive all guests—from the magnificent cathedral with its lofty arches suggestive of the groves, God's first temples, to the little churchlet with its spire pointing the soul upward. Until I read these intimate confessional returns from hundreds of Christians of every name and all parts of the land, I never realized how every item of every type of Sunday service, even to its minor accessories and details, had laid hold of man's very heartstrings. The pealing bells which seem to say that all is well in heaven and on earth, and calling, calling to prayer; the walk or ride to and from church, like no other because nature seems so new and divine; social intercourse when friends come more close than on other days; the dim religious light often suggesting twilight and forest, the two most healthful of all environments for worship; the sacred symbols and mottoes, perhaps pictures and crucifixes, the sacred altar or desk, the fluted organ and the pealing tones of music, which is the language of the heart and not of the head, like speech; the stately vestments, the choirs and perhaps processionals and the incense from the swinging censer, the bowed head and bent knee, the reading and perhaps intoning of litanies, responses, sacred texts and prayers hallowed by the association of centuries; the sacraments of baptism, signifying the washing away of sins, and of communion, which makes us flesh and blood partakers of the death and resurrection of our Lord, the ineffable charm and sense of betterment that all and each of these bring to sympathetic souls is something above the present reach of all the theories of ethics or the psychologies of religion up to date to explain or even to comprehend. Even the collection, the attenuated relic of sacrifice of animal and once even of human victims, rebukes selfish greed and stimulates sympathy with

need and pain and love for our fellowmen. These are the most efficient agents the world has known for making the individual feel his solidarity with the race and his kinship with God. At their very lowest they are masterpieces for stimulating man upward and onward toward the higher life of the superman who is to be later far beyond what we have attained unless optimism, evolution and prophecy are all false. What a repertory of methods and instruments for the work of the divine pedagogue, as Tertullian called the Holy Spirit, and how they each and all lay hold of the past, the present and the future and compel communion with the oversoul that guides to all truth, beauty and goodness! How it all incites to self-examination and, at least, inner confession, showing forth the whole life of the body and soul in the perspective of eternity, where nothing survives save the measureless distinctions between good and evil!

As to the clergyman in his sermons, which to many of us Protestants constitutes the heart of the service, this is not the place nor I the man to speak, but I would have both, virile and practical, saturated with idealism, both moral and religious, for there is nothing so practical as the ideal. The preacher must know the human soul and Scripture, the inspired textbook of the human race in psychology and ethics, bring forth all the positive but never any of the negative results of the higher criticism and of science, always fulfill and never destroy, with more of the old denunciation of sins of appetite, greed, selfishness, lust and lawlessness that abound in every community; not be always silent on current events for fear of sensationalism, but intent also on building up the kingdom of righteousness within the soul that chiefly needs quiet personal edification; able to preach with fervor and in proper season, to command waves of religious revival and also to preach the duty of perennial personal culture; able to sway multitudes by the matchless story of the cross or to persuade the few academic doubters who are passing through the stages of mental enfranchisement to narrow views, eloquent to men as well as to women, a scholar, yet all a man, throbbing with the enthusiasm of a larger and higher humanity. Of course such an ideal does not exist and the theological seminary of our day and land is far from able to rightly equip such an one, but that both will come I have not a shadow of doubt or fear because we need them, and in the story of the world's history the hour always sooner or later brings the man.

The problem of the child and youth as related to Sunday is not solved by the Sunday school or the children's second Sunday in June. Urban children especially who have led the sedentary life of the school during the week would be far better

for more physical exercise than they usually get on that day. Why should the school yards in crowded districts and the hundreds of playgrounds now being everywhere established not be open, at least afternoons, and especially for younger children, and why should indoor activities like cutting and pasting pictures, many of the plays and games from Johnson's list of hundreds, some of which are relics of primitive religions, not be approved? Why not well conducted excursions and picnics to get to nature; I think the burden of proof is now with those who object. If the children's theatre presents only biblical or purely ethical dramas, why close it on Sunday, especially where children are likely to do worse without them in a city like greater New York where there are 1,500 nickel and dime shows, lacking but in great need of, moral censorship, many of which are open to all on Sundays? Surely there should be plenty of walks and talks and nature lessons, and collections of natural objects and specimens should be favored. In Germany, nearly or every kind of manual training, industrial and technical school for the young who are employed during the week are open on Sundays, when the best work is done, and we must not forget in this connection that the original Raikes' Sunday school taught almost entirely secular occupations and day school subjects. The children's room in every public library should, of course, be open under proper supervision. As family day, there should be plenty of home instruction and best of all, stories, if practicable, told by twilight, moonlight or firelight, for nothing is more educative and tales constituted once the sole material of education, so that this is an important element in restoring the lapsing functions of the home. We should, of course, revise and reform the Sunday school and try the Kent plan of one good professional Sunday School superintendent in a city teaching successively the teachers of each denomination educational principles in general and how to do their special work better. All these things and more too there is room for, not to the exclusion of, but in addition to, church going, which takes but a small part of the time, the good old habit of which should be restored.

In organizing the scientific Sunday of the near future, we should always and everywhere accept the meliorists, accepting the relatively better where we cannot get the absolutely best. Perhaps we must welcome the half bad, if its sure alternative is the wholly bad, and sanction almost anything that is better than that which children would otherwise do, and try to make it ever better, compromising with evil if we are unable to eradicate it.

Finally, Sunday is no longer the ghastly day it once was for adults and especially for children. Never was rest and recrea-

tion so cryingly and so physiologically needed as in the strenuous American life of to-day. Never has the church in its service had so many other alluring, if not seductive, outside attractions to compete with. Never was the work of reinterpreting rights, duties and permissibilities of Sunday so vast, delicate, complex and yet so imperative a task, for this is the problem that now confronts this league. To solve it completely demands nothing less than to draw lines between the best and worst in all kinds of lives and communities with countless personal and local modifications and adaptations and adjustments. The day when a few uniform iron laws equally binding upon all everywhere sufficed is also forever gone. We must now look not only to the sanctions of the past, but also to the needs of the present and future. There is no one best way of spending Sunday for all, but many diverse ways—some best here, some there and some not wholly good must be provisionally welcomed till better ways are practicable in order to save from worse ways. Places where mild drinks are dispensed are better for all who would otherwise yield to gross intoxication, and we have suffered and the devil prospered long enough from the old maxim of uncompromising reformers—all or nothing.

More than any other day of the week Sunday has, from time immemorial, been the day when the sexes see most of each other, and every opportunity contributing in any degree to make their relations pure and innocent should be wide open, and every environment that makes for temptation to vice should be reduced to the minimum on that day and evening. In our personal regimen for the free parts of Sunday there is much to be considered in the precept to avoid habituation and routine and vary widely and often, perhaps each week, as circumstances and mood incline, our mode of spending it, for the day must be kept sacred to freedom and uniform all-day Sunday habits are to be avoided.

The suggestion of an hour of solitude and meditation, too, not for children and perhaps not always for youth, but for all adults, merits careful consideration. More or less solitude has always been one of the great resources of great souls who have often been nourished in the desert or the mountain, for it inclines us to front the basal facts of life, duty and destiny alone with God and his nature, its first revelation. Forest shade, the high mountain views, the sea, the shore, flowers, birds, other wild things that live, sunset, twilight gloaming, wind, clouds, storm, thunder and above all the eternal stars speak Sabbath peace to the soul that exposes itself to the contagion of their influences alone. Or if the one impulse from the vernal woods that can teach us much, or from the "flower in the craunied wall" which the poet says can tell us what God

and man are, the celestial communion that made the undevout astronomer called mad, is denied us, then the little corner with some little book or chapter of God's word or of man's best, or an hour alone in the four walls where the dark third of our every twenty-four hours is spent may recruit our jaded moral impulses and shed regenerating influences over the week to come.

But I would not close without a plea for at least one church service of some kind for all, of whatever creed or no creed. Even dressing, going and coming, bells, incidental meetings with friends, that strengthen the social bond, giving, instead of the weekly lust of getting, all help by lifting us out of wonted routine and bringing the grateful rest of change and pulling new stops and playing unused registers in the soul's organ, while bells, hymns, prayers, Scripture, preaching are all pregnant with conscious and perhaps still deeper and more potent unconscious influences that help on the great momentum of evolution, the push upward that God and nature have so deeply implanted as the most precious thing in every human soul; for without some church home, some of the best and highest things in the soul remain homeless and vagrant.

In January, 1906, the workmen of Alleghany County petitioned 800 firms to avoid all unnecessary work on Sunday. Some 400 religious organizations and 30 societies of workmen have joined this movement. It was caused by a sense of the workmen that they were more and more compelled to toil on that day and that they could do more and better work with the old Sunday exemption restored. The petitions urged that those whose services were needful on that day be given another week day for rest and that along with the encroachments of employers upon that day lawlessness and a weakening of moral energy has been caused.

France has never had Sunday legislation and the first Sunday movement was on the occasion of the Paris Exposition of 1889, at which a National Congress of Weekly Rest, the word Sunday being barred by the Government, was held. It was presided over by Senator Say, lasted four days and the stenographic account of its proceedings make a volume of 400 pages. To this congress our President Harrison wrote that even were man an animal and quite apart from Scripture, weekly rest was needful and Gladstone's letter stated that he ascribed the full possession of his faculties at his advanced age in no small degree to the habit of Sunday rest. A propaganda was started and a People's Union For Sunday Rest formed with Jules Simon at its head. In October, 1900, the Government, assured of the purely humanitarian purposes of the movement, consented to an international congress which was attended by

over 400 members from many lands representing many associations and which lasted four days. Suppression of Sunday freight trains was effected ten years before in Switzerland, and since, partly as a result of this conference, in Prussia, Bavaria and Belgium. This has been strongly urged in France where mail delivery stations are now closed. Many of the great shops on the Louvre have been either closed or most of the clerks released and the increase of receipts on Saturdays and Mondays is said to fully compensate the loss. In France, there are three parties upon this question. (1) Those who would invoke the government to intervene. (2) Those who wish legislative action later only when public opinion has been sufficiently aroused, and (3) a small group who oppose all official action.<sup>1</sup>

Lord Avebury proposed a new Sunday Bill in 1905, which was to permit the sale of milk and cream all day and bread, fish, cooked meats and vegetables up to 9 A. M. in the slum districts where, especially in hot weather and in crowded tenements, such provisions cannot well be kept over night without danger of contamination. In this and other matters he proposed to admit some degree of local option. The bill also proposed to increase the present fine for Sunday opening which was only five shillings and was no deterrent and to make it accumulative. It was not drawn up because of the great increase of open shops who could afford to pay the fine. If one trader, perhaps a new comer, opened on Sundays others felt compelled to do so, however much against their will. The House of Lords, however, defeated this Bill on the protest of the Lord's Day Observance Society, while the Lord's Day Rest Society advocated it.<sup>2</sup>

Since Bauschwinge's discovery that after a permanent set has been produced in metals under heavy stress, for instance in bridges, rest increases the limits of elasticity, it has been abundantly shown that fatigued metals have reduced elasticity.

Rev. Percy Grant of New York insists that in the progressive socialization of the church which lays very heavy burdens upon the clergymen the need of prolonged vacation rest is greatly increased.

If Chicago is run as a wide open town, the destructive influences of the saloon will naturally be far greater on Sunday than any other day. An open and above board issue and a frank campaign ought to lead to a more scientific discrimination between industries that are essential and those that really promote rest.

<sup>1</sup>See E. Deluz: *The Independent*, 1901, p. 75.

<sup>2</sup>See Lord Avebury's article in the *Nineteenth Century*, September, 1905, and Peake's argument against it, *ibid.*, November, 1905.

Students of religious conditions in England are concerned over a notable decline in Sunday observances and family worship. The Lord's Day is a holiday and is too often spent in a way that causes weariness. Sunday rates and trains are now in many places discouraged and even discontinued. Some have advocated legislation in this direction.

A new Sunday law went into effect in Canada, March 1, 1907, and among its provisions was the prohibition of sensational Sunday papers and practically indeed of all. The bill was openly opposed by the railways and also by the Jews and Seventh Day Adventists. By this law, not only are Sunday excursions and all work forbidden, but all shunting with yard engines is not allowed between 6 A. M. and 8 P. M., except for cases especially defined. About 100,000 men have been released from toil one day in the week by this law. By a vague clause slipped in, provinces were given certain powers that would to some extent nullify the action of this law, and it has been weakened in Quebec and may be so in British Columbia, but all the other provinces have endorsed the act and have taken measures to enforce it. This is held by the friends of the Sunday movement as a great step in advance.

Justice O'Gorman of the Supreme Court of New York in December, 1907, vetoed Sunday shows in a way so comprehensive as to bring about suddenly a genuine Puritan Sunday, for concerts, peep shows and penny arcades were also placed under the ban. These shows are not conducted for the benefit of the public, but solely for profit estimated at a million dollars a year. The city, as a whole, does not wish for merely variety shows. The board of aldermen, however, who have the power to do so, have modified this law which has been a storm centre for some time. The prohibition of Judge O'Gorman was based upon an investigation which showed that there were 28 theatres and 16 concert halls open in New York besides the one cent shows, and the protest was made, in part, in behalf of the actors and actresses who were obliged to play seven days a week. Some of those who run these places boast that they draw young men from the street and the saloon.

The Unitarian clergyman, E. P. Powell of New York, thinks it absurd to establish one kind of morality six days in the week and another kind for the seventh. He deems it waste of moral force to keep up the semblance of a sacred 24 hours. Opportunities for rest should be enlarged; churches should have playgrounds and gymnasiums open on Sunday. When Agassiz first came to America the worst feature of our society, he thought, was the restrictions of Sunday, for he had been accustomed to hear a sermon in the morning and to play ball with his

pastor in the afternoon, and even John Calvin sometimes adjourned his evening service to go with his people to a theatre, better, to be sure, than ours. Powell pleads for the right to play golf in the green fields on Sunday. The church must give something better than the hard work of listening to illogical sentiments. It is not wise to put handcuffs on for one day and take them off for the other six. Every Sunday enforcement bears heaviest upon the poor laborer. What is right on Saturday is right on Sunday.

In a recent article on Sunday Laws in the United States, the following classification according to States is made:

"The first class is composed of those whose laws are framed according to the British model and prohibit on the Lord's day labor, business, or work of one's ordinary calling only. This class includes Georgia, Indiana, North Carolina, Rhode Island, and South Carolina.

"In the second class are to be placed all those whose Sabbath laws contain strong and comprehensive prohibitory clauses forbidding labor, business, amusements, fishing, hunting, etc., and make few exceptions to the operation of the law besides works of necessity and charity. This class includes Arkansas, Connecticut, Delaware, Florida, Indian Territory, Iowa, Kansas, Maine, Maryland, Michigan, Missouri, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, and Utah.

"The third class embraces those whose prohibitory clauses are materially weakened by making many exceptions besides works of necessity and charity. Some of these exceptions are here noted. Alabama, Kentucky, Mississippi, Texas, Vermont, Virginia, and West Virginia make an exception of railroads. New Jersey excepts Sunday trains and legal notices in Sunday newspapers. Massachusetts and New York permit the sale of tobacco, the printing and sale of newspapers, and the latter State permits also the sale of fruit and confectionery. Minnesota allows the printing and sale of newspapers. The Wyoming law makes exceptions of newspapers, railroads, telegraph companies, news depots, farmers, mechanics, furnaces, smelters, glass works, venders of ice cream, milk, fresh meat, and bread. The law of Louisiana excepts newspapers and printing-offices, bookstores, public and private markets, bakeries, dairies, railroads, theatres, and other places of amusement.

"The fourth class includes those States the prohibitory clauses of whose Sabbath laws are inherently weak. The laws of Colorado, Illinois, and New Mexico prohibit on the Lord's Day only such labor and amusements as disturb congregations

and families. Business is not mentioned. New Hampshire forbids such secular business or labor as disturbs others. Montana prohibits neither labor nor trade. Nebraska does not prohibit trade. Oregon does not prohibit labor. Washington does not prohibit labor, and weakens the clause prohibiting crimes against the public peace by adding, after the enumeration of 'riot, fighting or offering to fight, horse racing, or dancing,' the clause 'Whereby any worshipping assembly or private family is disturbed.'

"The fifth class embraces those that have no Sabbath laws. This class includes Arizona, California, and Idaho."<sup>1</sup>

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<sup>1</sup>W. F. Crafts: *The Sabbath for Man.* Int. Reform Bureau, Washington, D. C. (no date), pp. 72.

## ANATOMICAL OR PHYSIOLOGICAL AGE: VERSUS CHRONOLOGICAL AGE

By C. WARD CRAMPTON, M. D.

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*Thesis.* Physiological Age should be taken as a basis for all record, investigation, and pedagogical, social or other treatment of children.

*Evidence.* The term anatomical age or physiological age refers to the stage of development in contradistinction to chronological age in years and months, which is our usual method of age designation.

Individuals of the same species vary in their rate of development, so that any chronological age group will contain some developed far beyond the average and others retarded considerably more than the average. Those who are retarded may take years to develop to the same degree as the average individual of their age group. Those who have been most rapid in development may have passed the average stage of development some years before. Hence, there is a wide variation in individuals, for development means change of bodily and mental characteristics.

Where development is particularly rapid we still observe a considerably greater variation among individuals of the same age. Thus, at the rapid development at the so-called age of puberty there is the greatest variation in physical and mental characteristics.

The child is essentially different from the adult as the larva is from the imago, yet we have not recognized this fact in the treatment of the child where it is most important that we should. There are both the immature and mature forms present at all ages from ten to seventeen, yet we have, *without exception*, classified all children on the chronological age basis.

It is vastly more important for us to know how far a child has developed, and what he *is*, than to know merely how many years and months he has lived, although the latter fact will always have a relative significance.

The present work is concerned in demonstrating, at one par-

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This investigation is now continued under the direction of C. Ward Crampton, M. D., and under the auspices of the Committee on the Physical Welfare of School Children, Robert W. Bruere, Secretary, 105 East 22d Street, New York City.

ticular epoch, in what degree physiological age is more significant than chronological age, and in providing an objective basis for observation, with the belief that there will result therefrom a change of our trend of thought favoring the basis of physiological age in place of chronological age.

The writer observed in 1902 that boys not yet pubescent (as to the pubis) were smaller and weaker than those who were pubescent. These results were presented at the Olympic Congress at St. Louis in 1904, and published in the American Anthropologist, October, 1905. This sign of puberty is second only in reliability to the direct observation of the spermatozoon.

The data for this investigation are 4,800 records from school boys in a New York High School. This school receives its boys from the elementary school at about the age of fourteen years and prepares them in four years (eight terms) for entrance to college or business. They represent all social classes and include a large variety of racial mixtures.<sup>1</sup>

It is easy to distinguish between a complete absence of hair and an abundance of the same and to designate the individuals as *pre pubescent* or immature, or on the other hand as *post pubescent* or mature, but the process of acquiring this growth is a slow one and one may often be in doubt in placing an individual with but a beginning growth in either class. To eliminate this uncertainty an intermediate class was established and called the *pubescent* or maturing class. This class contained all who have anything more than an abundant lanugo and less than a very well defined covering.

The designations "immature," "mature," etc., have reference to the epoch under immediate consideration and designate classes in respect to the secondary sexual sign of pubescence. There are other epochs and signs of physiological age in both boys and girls such as the appearance of the various teeth, menstruation, menopause, etc., which are also presumably more significant than their related chronological ages.

Table No. 1 below gives the population of the half year groups 12.50-13.00 to 17.50-18.00, with reference to physiological age, and demonstrates the important fact that the chronological age groups are not homogeneous.<sup>2</sup>

<sup>1</sup> A study of the first 813 cases shows the following larger parentage groups.

*Birthplace of parents.* Both United States, 286; both Germany, 134; both Great Britain, 69; United States, Germany, 70; United States, Great Britain, 61; both Russian, 40; both Austro-Hungarian, 37; scattered, 125.

<sup>2</sup> The tables herein contained have been published in the Psychological Clinic of June, 1907, and in the American Physical Education

TABLE No. 1

Age in Years	Physiological Age Groups.		
	Immature	Maturing	Mature
12.50	13.00	69%	25%
13.00	13.50	55 "	26 "
13.50	14.00	41 "	28 "
14.00	14.50	26 "	28 "
14.50	15.00	16 "	24 "
15.00	15.50	9 "	20 "
15.50	16.00	5 "	10 "
16.00	16.50	2 "	4 "
16.50	17.00	1 "	4 "
17.00	17.50	0 "	2 "
17.50	18.00	0 "	0 "

From this table it will be seen that up to 17.00-17.50 each age group has its varied constituency of immature and mature.

TABLE No. 2

Age in Years	Average Weight in Kilograms		
	Immature	Maturing	Mature
12.50	13.00	35.2	36.6
13.00	13.50	35.0	37.2
13.50	14.00	35.4	37.9
14.00	14.50	35.2	38.6
14.50	15.00	36.8	39.0
15.00	15.50	37.9	38.8
15.50	16.00	36.7	41.8
16.00	16.50	(40)	38.3
16.50	17.00	(42.5)	(41.5)
			53.5

Review, March, April, May and June, 1908, the latter publication gives a full report of the investigation up to the present time. They are repeated here to show the concrete evidence on which these recommendations are based.

**SIGNIFICANCE OF PHYSIOLOGICAL AGE IN TERMS OF  
STRUCTURE AND FUNCTION**

If the immature differed from the mature in no other way than this particular sign, it would hardly be worth while to segregate these groups. The classification shows, however, that there is a striking physical change in the progress from immaturity to maturity. At characteristic ages, the mature are more than 33% heavier, 10% taller, and 33% stronger than the immature, as indicated by the Tables No. 2, 3, and 4.

From Table 2 it is evident that any statistics which do not include a reference to physiological age are faulty and incomplete in so far as weight and allied features are concerned. Practically all of our statistical work must be viewed in the light of this evidence or disregarded completely.

TABLE No. 3

Age in Years	Average Height in Centimeters		
	Immature	Maturing	Mature
12.50	13.00	144.0	150.5
13.00	13.50	144.2	153.9
13.50	14.00	145.7	155.9
14.00	14.50	146.6	157.9
14.50	15.00	147.3	158.9
15.00	15.50	149.8	160.7
15.50	16.00	149.8	162.6
16.00	16.50	* 151.0	* 164.6
16.50	17.00	(153.)	165.4

Table 3 shows the different average heights of these three physiological age groups for each half year. The error of previous statistical work is clear, and the wisdom of recognizing the basis of physiological age in grouping statistical and other records is thoroughly demonstrated.

The following table is of the strength of grip of the right hand taken with a two bar dynamometer.

Table 4 demonstrates again that the immature are radically different from the mature. These three tables present a reiteration of proof of the importance of this classification, upon which it is unnecessary to enlarge.

TABLE No. 4

Age in Years	Strength in Kilograms		
	Immature	Maturing	Mature
12.50	13.00	26.6	28.2
13.00	13.50	26.3	28.1
13.50	14.00	27.6	30.4
14.00	14.50	27.3	30.2
14.50	15.00	29.4	30.8
15.00	15.50	29.6	31.1
15.50	16.00	32.5	30.4
16.00	16.50	31.7	29.6
16.50	17.00	(27.5)	33.2
			48.3

In view of these great physical differences, it is not surprising that there are demonstrable differences in mental ability.

For a compendium of the great mental and social differences between the immature and mature, it is only necessary to refer to G. Stanley Hall's Adolescence and other publications of a similar nature although data are based upon "puberty" and not upon any objective sign their results are beyond question.

So far in our investigation we have obtained records only for high school boys, and have taken success in scholarship as an indication in mental ability. The immature boys at all ages fail to pass the work of any grade much more than those who are mature.

#### EDUCATION

Our educational plan fails to take any cognizance of the difference between the immature and the mature, and of the vast development of existing and latent abilities, and the accession of new traits which occur during pubescence.

Nevertheless, the trend of our educational endeavor is rapidly changing. That every child entering the kindergarten must proceed regularly through the elementary school, high school and college, is no longer the end and aim of our system. Our practice is being directed towards life as well as towards culture.

It is being recognized that the world provides little room for the scholar, and much room for the mechanic, clerk and merchant, and it is idle to endeavor to transform any growing generation of children into an adult generation of scholars.

Hitherto education has succeeded in rejecting all of the children who fail to keep in time with the lockstep, and it has done its work fatally and well. Only those who could endure a system frankly fitted to subserve the ends of higher education remain in school. Only those are rejected who have failed in scholastic promise and accomplishment. These failures must therefore adopt other than scholastic or professional activities to gain a livelihood.

Dropping out of the lockstep into life work is in one respect a most salutary thing for those unfitted for scholastic development, but our compulsory education law demands that the child be kept in school until he is a certain age, and has completed school work of a certain grade.

This retains the deficient scholar in school long after he has reached maturity, and we find in the lower grammar grades (from 5a to 7a in New York City) thousands of mature children who are, have been, and always will be poor scholars, more out of sympathy with school work than ever before, resistant to all school authority, turbulent, unruly, wasteful and useless burdens merely cumbering the scholastic ground till they become habitual truants, or finally succeed in getting their "working papers." A preliminary investigation shows that in the 5th, 6th, and 7th years in the elementary schools in New York City the poor scholars are on the average 37, 40 and 46% respectively more advanced in maturity than the good scholars. This is quite contrary to the conditions shown in the high schools.

The fundamental fact is wholly disregarded. A child commences to feel his newly-acquired neuro-muscular ability when he matures, his increased mental grasp occasions a change of attitude toward life, and he begins to fit himself for a place in the scheme of adult affairs, and to exert himself for a livelihood and a competence. The instinct for life work, the "earning instinct," is awakened. Those who have been successful scholars will find themselves well advanced in school, and can with assurance of success look forward to a scholastic or professional life;—those who have had poor success as scholars will turn to the world of affairs and strife, of mechanics, industry, or business, for their maintenance. At this time it is essential to the mental and moral health of the boy to engage in something in which he may succeed. Our present system tends to confine him to a dull routine of school failure.

*Recommendation I. In the light of the foregoing facts it is recommended that children who mature in the lower grammar grades be given the opportunity to obtain such form of instruction in the elementary school as will directly prepare them for immediately taking a part in active life.*

Trade education, business practice, mechanics, etc., in short, industrial education, should be introduced for the purpose of releasing these children from the ~~educational~~ lockstep and affording them an opportunity to become useful citizens. Our great body politic is not essentially scholastic—to train for scholarship alone is undemocratic.

It is at this point the educational system on the inflexible basis of chronological age fails in its functions; it suffers from a lack of rational classification wherever mature and immature children are brought together in the same class. Measured by the Procustean pedagogical system all children in the same grade are relatively equal in scholarship; but our educational control contemplates no cognizance of other and more valuable traits than those related to school success, traits the mature possess in such a marked degree, and which the immature lack. In the upper grammar grades and in the high schools the mature are probably not so much better in scholarship than the immature, but they have a whole range of latent abilities applicable to success in life, which, if trained at this point, would lead to personal benefit and industrial efficiency; neglected, they become relatively useless or perverted.

*Recommendation II. Where mature and immature children are now brought together in the same class in the elementary or high school, they should be separated into different classes, so that the pedagogical, ethical and social treatment to which they are subjected may be better adapted to their disparate and distinct requirements and abilities.*

It is agreed that a further division on the basis of success in scholarship would add to the efficiency of teaching since the present idea of the school function is that it is almost purely scholastic. With the growth of the ideal of practical utility as the function of school work and the fitting of our curriculum to the divergent abilities of these two classes the need of this secondary classification will disappear.

#### CHILD LABOR

The problem of child labor is clearly reduced to a formula by our fundamental thesis. It is demonstrated that the mature are from thirty to fifty per cent. stronger than the immature, and that pubescence marks the beginning of the period of rapid increase in weight and strength, regardless of the chronological age. On the merits of the case it is clear that the immature who are weak should not be allowed to work, and that the mature who are more fit to work be allowed to engage therein. At present there is a division on the age basis which allows some immature to work and prevents some mature children from working, causing a hardship to both classes. This

is contrary to common sense, and the feeling of the community is justly against such arbitrary method. This is realized with becoming clearness as evidenced by the last report of Commissioner Draper, of the New York State Education Department (Commissioner's Special Thesis; Annual Report 1908; Our Children, Our Schools and our Industries), and by P. Tecumseh Sherman, in his report as Commissioner of Labor, New York State, 1907. The latter states, "there should be added to our law a requirement of a fixed minimum standard of physical development as a condition to granting a certificate of fitness to work in a factory."

*Recommendation III. Child labor, legislation should be based upon physiological age.*

It is agreed that no child found physically or medically defective should be allowed to engage in any but the lightest tasks.

#### IN GENERAL

Throughout the presentation of the foregoing evidence, the tendency is to exhibit with some degree of emphasis that it is essential that physiological age be considered as a prime factor. Before and after the ages in which pubescence may be taken as a diagnostic sign there are, without doubt, other signs of physiological age, which will have a significance, and which time and investigation will demonstrate. It is probable that at *all ages* we must consider physiological age first and other factors afterward. While the paramount importance of physiological age is apparent, it is not in any way recommended that we blind our eyes to other secondary bases of classification, such as chronological age, race, social strata, etc.

*Recommendation IV. All observations, records and investigations of children, and all treatment of children, whether pedagogical or medical, social or ethical, must regard physiological age as a primary and fundamental basis.*

## TWO GREEK PROBLEMS<sup>1</sup>

*τί δεῖ ποιεῖν καὶ τί δεῖ μὴ ποιῆσαι*

By J. E. HARRY, PH. D.

Professor of Greek in the University of Cincinnati

The head master of Harrow declares Greek is doomed. Charles Francis Adams, on the other hand, would prescribe Greek or Latin as a compulsory study to the day of graduation. So, while the whirligig of time is relegating classical Englishmen to the ranks of illiterate modernity, where they can tell

How many feet has a cattypiller  
And she curls up dede if you try to kill her,

we Americans are being brought around to a consciousness of the fact that the old training is, after all, the one thing needful. Lawyers, doctors, preachers, are pining for the old régime; they are beginning to realize that the world is losing something precious, and they feel that their professions are suffering immensely by the loss. Are not we teachers partly to blame for the decline, and shall we not assist in reviving the interest in Greek?

My experience in teaching beginners is so limited that I hardly feel competent to suggest methods, beyond insisting on a thorough mastery of forms and on an extensive vocabulary, reducing the amount of syntax to be learned to a working minimum. The modicum of success I have met with in teaching modern languages leads me to believe also that better results might be obtained in Greek classes by sending the language to the brain of the pupil through the ear, so that a real familiarity with the "lit language straight from the soul" may be acquired.

Students are not flocking to the Greek rooms in our colleges to-day. Not only are they crowded out, and talked out, in the secondary schools, but even after entering the academic halls they are diverted from Greek courses by a multitude of forces. Not the least of these was the removal of the champagne label A. B. from the bottle containing the genuine liquid, which label was attached forthwith to a vessel holding a mixture of ingredients which was believed both by those who administered

<sup>1</sup>A paper read before the Classical Association of the Middle West and South, at Nashville, Tennessee, April 18, 1908.

and those who quaffed to taste like the nectar of the gods. Soon, however, as the first effect wore off, the illusion was broken, the adulteration perceived. But the harm had already been wrought. The bulk of academic students no longer drank at the Castalian fount, or, to preserve the figure, from the Cliquot cask. Then the demands of the new curricula became so great that both teachers and pupils felt that too many studies meant too great a burden. As a consequence, Greek was summarily thrust aside, into a corner—to survive, or haply perish, unwept and unsung. To those unfortunates who weathered the storm the merciful (or merciless) death-blow was given by the poor pedagogue who handed down coldly to the Aristidean faithful few the cheerless genitives and subjunctives he had learned so well himself in "an antiquated humanist system administered by unimaginative and pedantic people."

Oh, this false for real,  
This emptiness which feigns solidity!

But to recover, to resurrect! Many things we do, must be left undone, and many, if not most, things we do not, must be done. First of all, the freshman should be taken far into the literature, so that no choice but to elect Greek the second year remains open, his appetite whetted for a more bountiful repast at the more sumptuous banquets of the dramatic poets than was possible on the scraps that fell from the teacher's diminutive Homeric table. To achieve this result no happy-go-lucky three-hour-a-week course will suffice, with intercalated days for the teacher to

. . . learn us all about jermes  
Mikerobes and bassilly and other wermes,

and for the disciple

. . . . . to know  
The approximit lenth of a june-Bugs toe.<sup>1</sup>

When I began my work amid new surroundings seven years ago the elective system had just been introduced; Greek was suddenly dropped from the curriculum as a required subject for any degree; and I was requested to arrange my courses in blocks of three or six hours, so that they might fit into the general scheme of things. Six was the number finally selected. Not without trepidation was the first recitation awaited. A solid phalanx of six days of Greek was enough to affright the

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<sup>1</sup>Truth is stranger than the poetry of the tot's chronicles. Here are a few samples of spelling from examination papers of advanced students who have enjoyed to the full the benefits of the "advanced" education: roughian, wrotten, rownd, exceessable, sausy, seenis, laidies, amoung, toutch, comen, exsist, procede, preperation, unmerciously, straitforward, auther, ecstream.

soul of the boldest barbarian. It must be confessed that the number of those who presented themselves for the ordeal was disappointing. But time proved the wisdom of the choice made. The intensive study of Lysias, Herodotus, Homer and Plato by that small band was so fruitful that no other fields offered superior attractions the second year. And a substantial growth in the size of the next freshman class was a direct, though unforeseen, result.

Eighteen years of collegiate work in Greek have taught the lesson, too, that the teacher must be careful in selecting authors and parts of authors to be read, more careful in deciding what he must cast aside, or leap over, and most careful in the gradation of the lessons, both in subject matter and in quantity. This determined, the rest is comparatively easy—read as much as possible. And here a certain assistance is invaluable to the learner. Under the guidance of a competent teacher twice as much ground can be covered as under the old humdrum system of assigning fifty lines for the next day's recitation, letting the pupil dig it out as best he may by the help of a ponderous lexicon and then "hearing the lesson." The danger of this minute study is loss of interest. The business of a teacher is to teach, not to hear lessons. Thumbing the dictionary is a necessary evil, and, like the measles, must be endured once in a lifetime, perhaps; but no language ever was, or ever will be, learned by this method. Each word has its own tint of association, which constantly varies with its environment. In the sentence the word is alive, in the dictionary dead; and the language itself becomes alive as soon as its component parts become familiar to the student as a means of expressing thought. The ear, the eye, the memory, the imagination, the affections, are so many aids to a speedy command of a tongue that seemed to the pupil but a few months before a dead language, a sealed book — *savoir n'est rien, imaginer est tout*. To acquire the language is the main thing. As Anatole France says in *Sylvestre Bonnard*, "quand on savait une chose, il était indifférent qu'on l'eût apprise d'une façon ou d'une autre."

My assistant reports that one of his boys, a good, healthy specimen of the best American type, recently exclaimed, after a few recitations, in which all the time was not taken up in learning and expounding the mysteries of the conditional sentences or the saving grace of prayer in the optative mood: "Gee! I want to read everything Herodotus ever wrote!" By the lexical-grammatical method a student may learn in time that *in jubeo id* does not signify *in order that*; but he will never arrive at the point where he makes the joyful discovery, even though he be versed in French, German, and Italian, that "*Toutes nos langues modernes sont sèches, pauvres et sans*

harmonie en comparaison de celles qu' ont parlé nos maîtres, les Grecs." Syntax must not be neglected, its value underestimated (literary appreciation is impossible without a thorough understanding of the forms and the relations of the words in the sentence); but ten minutes are ample in any recitation for the elucidation of either the salient or the unusual syntactical phenomena that demand attention; and it is only the shallow student that is content with a knowledge of the words unaccompanied by a comprehension of the sense. The work need be neither slovenly nor dilettante. Pourtant il faut savoir blâmer et c'est là un devoir rigoureux. A few short crisp questions and answers will make the dark places luminous; time should not be wasted on non-essentials; and, above all, let there be no balking, or flagging of interest. In Lysias the rapid-fire batteries should be brought into action early, to mow down error and vagueness in the student's minds on points of form and syntax. The principal parts of the principal verbs and the essential facts about cases, moods, and tenses, should be thoroughly mastered. This is not only important for a comprehension of Attic Greek, but is in itself the best possible preparation for the work in Herodotus and Homer, which should follow. Careful observation here means more rapid progress in the Ionic and epic literature later. A student should hardly be allowed to read Homer except on the pain of translating him into Attic Greek—not as an aid to the mastery of Attic, but primarily for appreciating Homer. Nothing in our secondary school curriculum in Greek do I deprecate more than this temporary toying with the *Iliad*. I know that much can be said in favor of Homer as a text-book for the high school pupil; but this remains true: hardly has the distracted student touched the immortal poem (after spending his days and nights in learning a language in which Homer did *not* write) until he is switched back again to the Attic he would fain forget. But in college he should march bravely on, with the aid of Herodotus as a stepping-stone, to enter into and take complete possession of the new field by reading, not three, or six, but twelve books of a work which will leave an everlasting impression on his mind. Lysias, Herodotus, and Homer completed, with a brief course in the lyric poets, particularly Anacreon, the student may take up Plato for the last few months of the freshman year: *Protagoras*, *Lysias*, *Laches*, *Charmides*, *Apology* (and possibly *Crito*) with the narrative portions of the *Phædo*. If he has done this well, no other course in the college curriculum will lure him away from Greek in the sophomore year. He is now ready to approach the supreme creations in literary art of the most gifted branch of the Hellenic race. No dawdling now. That he knows his Greek is assumed. The

*Prometheus Bound* is not for babes and sucklings. A student who has to pick out laboriously the subject, verb and object has no business to read the sublime poem; the teacher is committing a blunder to put it into his hands. The reader will find that he has new words to learn, but that is a matter of only a few minutes each day, and to the genuine Grecian a real delight. The poet's business is to portray, not to analyze; and the student will never appreciate that portrayal if he resorts to deadening analysis, if he proceeds to pick the poem to pieces for the parts of speech. The teacher must be sagely unanalytic rather than analytically sage. As Jebb says, translation will not help far; still less will analysis, be it ever so skillful and so subtle. A painstaking and acute mind is not the *ne plus ultra* for the comprehension of the *Agamemnon*; the student must understand Æschylus, not logically, but psychologically. If Æschylus is not approached in this spirit, neither pupil nor teacher will understand him—*il sera beaucoup lu, beaucoup aimé, peu compris et très commenté*. Teachers are too prone to wrangle in tickle points of niceness and entangle themselves in over-wiseness. Furthermore, in the commentary of both professor and editor the poetic element must be kept constantly in mind. Insist upon the English of the Greek idea, and that which was a thing of beauty in the original becomes a bald commonplace. Hence, the teacher must keep himself in the poetic spirit, in the poetic atmosphere. Wer den Dichter will verstehen, muss in Dichters Lande gehen. The view from a college window should be upon "classically educated boys flinging themselves with energy and ardour into modern literature." Just one-fifth of the bulk of the notes in my *Prometheus* is made up of illustrative reading from the poets of Greek and other literatures. This is probably more space than should be devoted to any other play. In my *Hippolytus* not more than ten or fifteen per cent. of the commentary could be put into this class. That there would be many opponents of this kind of annotation, I was well aware before I put pen to paper (the reasons therefor we need not now take the trouble to inquire—réfuter des critiques est un vain amour-propre); but that the book has been accorded such a cordial reception has been a great satisfaction. One of the sanest teachers in the Middle West declares (so I am told by the publishers) that the edition includes what we should have and excludes what we should not have in a text-book. Now, as this is the subject of my paper (for the editor's comments are important as well as the teacher's), *τι δεῖ γραφεῖν καὶ τί μή*, and as we are practical teachers seeking the best methods to secure what we all agree is the chief end of our profession, I propose to depersonalize myself, so far as I can, and set forth briefly this practical

teacher's views: "For a score of years I have contended that a Greek or Latin poetic masterpiece should either by exclusion or inclusion have regard for the following features: It should have no critical notes on the text except in an appendix, if at all. . . . There should be no grammatical references except in very rare instances. An unusual construction should be elucidated *in situ*. Parallel passages from English authors, and from other authors, too, should be freely drawn upon and given with considerable fullness." Frequently, as experience shows, an apparently trivial parallel from a modern poet will illuminate a passage far better than a disquisition by the editor, although the reviewer may fail to discern the appositeness of the quotation. This has been often demonstrated by the students themselves. Translations into idiomatic English of the more difficult phrases, and particularly of the choral odes, are also essential. The student should take up some great masterpiece of the dramatic poets and study it intensively (not necessarily slowly), with the assistance of both teacher's and editor's commentary, and then read either in the classroom or outside, and rapidly, without impedimenta, the best of the rest of the plays. Aeschylus, Sophocles, Euripides, and Aristophanes, and a goodly part of Thucydides and Demosthenes, may thus be completed in the sophomore courses, or, at all events, by the end of the junior year. After this acquaintance with the best that has been written by the masters of expression, the student will be eager to take every course in the department, even the special courses in syntax, which, at this point, will not be the least interesting, and assuredly will be far more edifying to the senior than to the freshman.

Once in the classroom and under the spell of Greek, the student will be loth to give it up for other subjects, which he is morally certain will not prove so attractive. Hence the teacher can fight the good fight here with a feeling of comfort. But outside—*ἀπόλεμος ὅδε γ' ὁ πόλεμος*—that were a war indeed, a battle hard to brunt. Unsympathetic, and even antagonistic, he may find most of his colleagues (who grow in number as the new professorships are added to the old "narrow" curriculum), the majority of whom, perhaps, brought up outside the pale of Greek culture, worship *βαρβάροι θεοί τινες*. And these *Τρυβαλλοί* the Greek professor must leave comfortably enthroned and seek not to induce his erring brethren to offer prayer and sacrifice and drink-offering to the deities that haunt Olympus' peak. To adopt such a course would be futile, if not fatal. A deity's heart may be turned with prayer and incense and burnt-offering, a faculty's never. Nothing is gained by showing antagonism to the sciolist. The scientist is often the strongest supporter of the classics. And the real value of Greek studies

can be demonstrated only by the product. We must work through our pupils and through our friends outside, the most cultivated of modern minds deeply imbued with a sense of the value of Greek. This, of course, means work for the already overworked professor. But the cause is worthy and the necessity great. If we do not rouse ourselves, the Philistines will be upon us, and another Dark Age imminent. Those who are on the Lord's side must gird up their loins. The darkness of ignorance on things Greek which already enwraps many communities is astounding. The mission of the Greek teacher is to force the rays of intellectual light and spiritual energy of Hellenic culture to penetrate these dark places. Our pupils may not study Greek in the spirit in which it was once studied, namely, to have a proper contempt for those who do not know Greek; but by their acts, looks, words, and steps, they can show the superiority of the Hellenic training, that they have something the others cannot get. Some of our classical teachers believe that the retort courteous to the cavilling critics who contemptuously cry, "Who can read Greek after he gets through college?" is simply this, "Who ever reads Shakspere?" But I confess that I am inclined to make a different reply, less courteous but more true, whenever I hear the declaration that a student who graduates in Greek cannot read Greek—the plain, blunt answer: "It is false." Not only should a pupil who has had three or four years of undergraduate Greek be able to read a comparatively easy author without difficulty, but he should also enjoy that author in the original, even if he should be suddenly stricken with blindness and be obliged to rely on the ear alone for a comprehension of the language; and I believe that a genuine reading knowledge of Greek is acquired by a far greater number of students in the United States to-day than our friends, the enemy, are disposed to set down to our credit. But if the academic "barbarian" cannot be made to see the superiority of Hellenic culture, he may be made to feel it; and the academic Grecian should spare no efforts to give those outside the narrow circle some tangible evidence of the fact that the Greek, as Matthew Arnold has observed, in sense and intellect is supreme, that the most cultivated men of our own time find in Greek art and Greek literature an unsurpassed freshness, charm, and simplicity. Many educated men to-day are as serenely unconscious of the existence of a Greek civilization (and what it means for us) as were the soldiers of Charlemagne; and a glimpse of that ancient world through a chance illustrated lecture on Greek art or an occasional exposition of the beauties of Homer or Aeschylus is little short of a revelation. We cannot hope for a complete restoration of Greek to its old place of honor; but we may at least prevent the

whole edifice from tumbling down. A few choice spirits may still be left to leaven the large mass of invaders in the advance of modern life.

A still larger work may be done along the same lines within the precincts of the university itself. Courses in Greek life and literature, open to those who are not acquainted with the language, should be offered in every college and university in the country. Such courses have already been established in many institutions, and with satisfactory results. The Grecian should go even farther and carry his missionary work into the domain of art, so that the general student body (and the teaching body) may feel the refining influence emanating from the Greek room, which should itself be made a thing of beauty and a joy to all who deign to enter. The long-raftered room may have served our purpose very well before science and engineering became the fashion—when students were athirst for the waters of Castaly—but to-day the Attic department, whether *au premier* or *sous les toits*, should surpass all others in beauty and in tasteful arrangement. A professor who keeps a dingy, dirty, cheerless room is little less than a traitor to the cause. The walls should be painted in a color soft in tone, restful to the eye, the furniture in perfect harmony, and to complete the transformation from the usual classroom, a thoroughly Greek atmosphere should be created by the installation of busts and statues and pediments or friezes—always observing *καρπός*—so that the students themselves may find their surroundings, as well as their books, attractive. Some may object to this on the ground that it is beneath the dignity of an august occupant of a professorial chair to resort to such means. I maintain that it is his duty as an apostle of high culture to adopt these very measures. I will go farther. He should see that the Greek influence extends beyond the classroom, radiates in all directions, so that it will be felt by those who are without the pale of this immediate Hellenic civilization (independent of the ancient they can never be, however unconscious of the fact they may be), so that day by day every member of the institution will be insensibly affected and improved, by the contemplation of, or even by a casual glance at, the objects of art, whether plastic or pictorial, which may be installed, through Greek initiative, in the corridors, reception rooms, auditoriums, and other public places in the principal buildings.

## A GENETIC STUDY OF VERACITY

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This study was undertaken with the conviction that the genetic method is perhaps more fruitful than any other as a guide to the formulation of ethical theory and to the solution of the practical problems of moral education. Its aim is to determine what light, if any, can be thrown on the origin of conscious truthfulness and purposed deception by studying the natural inter-relations of living creatures, and to gain from them such hints as may be afforded of the laws which must guide our efforts to aid the child to attain to the highest moral standard of the race in this particular.

For the purposes of this investigation two phases of truth and deception are considered, the first objective, the second, subjective. From the first point of view truth is accurate correspondence between representation and fact. From the second standpoint truth is the conscious intent to reveal fact. Obviously only the second has a moral content, but the fact that the two are mingled in common thought and in popular moral standards, and especially the fact noted by every careful observer of children that at a certain period of life the two are hopelessly entangled in thought and conduct, indicated that in a study of origins, though its chief end was ethical, the first could not be safely ignored. The progress of the study confirmed this belief.

Accordingly, the aim has been to trace from their lowest manifestations the evolution of veracity and deceit, presenting by way of illustration of each stage of development a few of the hundreds of available facts, selecting for the most part those that are most striking or those that are most accessible for confirmation by personal observation.

The study of the rise of veracious representation begins with the consideration of such foreshadowings of truthfulness as appear in the forms, colors, odors, and instinctive activities of the lower forms of animal life in their natural environment.

### I. RECOGNITION SIGNS BETWEEN THE SEXES

With the complete differentiation of the sexes and the isolation of each in separate individuals, the perpetuation and further

development of life came to depend upon the meeting of the male and the female. Perhaps this, or the meeting for rejuvescence by conjugation which preceded it, was at first accomplished by chance, but natural selection must soon have secured a more economical method. With the impulse of the sexes to seek each other rose the need of ready recognition. Here is probably the earliest form of the unconscious self-revelation which formed the basis for the evolution of truthfulness.

We have no clear evidence of the means by which recognition is accomplished among the protozoa and other low forms of life, but among the insects we may detect several. Possibly some of the differences of color and marking between the males and females of butterflies and moths of the same species, taken with certain observed likenesses, may facilitate the meeting of the sexes, though investigations seem to have disproved it in certain particular cases. (*Woods Holl Biological Lectures*, 1899, p. 163.)

While there is doubtless further significance, it is possible that the differences in color between the males and females of birds of many species belong in part to this category.

But beyond this simple revelation of sex we may find many forms of the declaration of physiological readiness for procreation. Butterflies usually rest with their wings so closed that only the dull colors of their under surfaces are exposed, but at this time they choose a conspicuous position and display their brightest colors and their peculiar markings. The females of certain moths attract the males from long distances by odors which are slightly, if at all, perceptible to human olfactory organs. (Alfred Goldsborough Mayer, *Woods Holl Biological Lectures*, 1899, pp. 122-123.) By confining out of doors a virgin female of *Callosamia Promethia*, a large nocturnal species which rarely attracts attention under other circumstances, the writer has taken one hundred and eleven males during the daylight hours of one and one-half days. Most of them must have come from somewhat distant points. One was observed approaching the spot against a slight breeze, wandering very little from the shortest route though it was still more than twenty rods distant. After fertilization this attractive power of the female nearly or quite ceases.

The light of fireflies and other glow-insects further illustrates this revelation of fitness for the most important function of their lives. Similar in purpose are the strident notes of other insects, the caterwauling of the feline tribe, the lowing of cows, and many similar manifestations.

## II. WARNING COLORS AND SIGNS

Certain insects and reptiles have acquired tastes or odors

which are repugnant to predaceous species, and have thus greatly increased their chances of survival in the struggle for life. It would manifestly be of great advantage to any animal that was unfit for food to advertise that fact, and thus escape the danger of experimental tasting. A very large number of cases in which this is done are known to science.

Most caterpillars closely resemble in color and markings the foliage upon which they feed, but some nauseous species are marked in conspicuous patterns with the most brilliant colors, which are designed "to assist in the education of their enemies." Among butterflies, certain species of the genus *Papilio* are so protected. A very familiar example is the larva of *Papilio asterias*, the common "celery worm," which is found in gardens feeding upon the plants of celery, parsley and carrots. It is marked with conspicuous bands of yellow and black, and when annoyed thrusts out a scent organ which diffuses a disagreeable odor. Similar warning colors are common among the lepidoptera and other orders of insects.

Frogs are regarded as delicacies by creatures of many kinds, and as a class are well protected by inconspicuous colors—greens and browns that blend with the grass and mud of their accustomed haunts; but one Nicarauguan species advertises its inedible qualities by its gorgeous dress of red and blue. (Thos. Belt, *The Naturalist in Nicaraugua*, page 321.)

Certain species which have acquired aggressive means of defense practice economy in their use and avoid the dangers of conflict by announcing the dangers that the enemy must face. "The Gila monster (*Heloderma*), the only poisonous lizard, differs from most other lizards in being strikingly patterned with black and brown." (Jordan & Kellogg, *Evolution and Animal Life*.)

Such is the significance of the yellow spots and stripes of the bees and hornets, and the black, red, and yellow bands of the poisonous coral snakes (*Elaps*) of the American tropics. Other venomous reptiles have various warning signs, among which may be mentioned as familiar examples the rattle of the rattlesnake and the expanded hood of the cobra.

Among mammals we find a few similar examples. The skunk, which in lieu of other means of defense discharges a fetid fluid upon its assailant, never manifests fear of man or dog. It is frequently encountered in the woods or about the farm buildings, and on such occasions is likely to approach the observer, but never takes flight. When the presence of an enemy is realized the long and bushy tail, which is chiefly white in color although the body may be wholly black, is elevated to a vertical position. Farmer boys and wild animals alike know that it is a danger signal, and the creature is very rarely molested.

A part of the economic value of the growling of the dog, the spitting of the cat, the pawing of the bull, and other characteristic symptoms of anger lies in the fact that they faithfully represent the emotional states of the creatures, and by awakening fear remove the necessity for actual conflict.

### III. RECOGNITION MARKS OF THE SPECIES

Aside from the necessity for the meeting of the sexes, there are several occasions upon which there is great advantage in the immediate recognition of the individual by another of the same species. This is especially important in the case of those species which care for their relatively helpless or unsophisticated young.

The colors of the meadow lark (*Sturnella magna*) harmonize remarkably with its usual environment when at rest or feeding upon the ground, but when it takes flight it displays several white feathers upon each side of the tail. These prominent markings are helpful as guides to keep the young from scattering in flight and thus falling an easy prey to their enemies. The same form of recognition marks appear in the common slate-colored snow bird (*Junco Hiemalis*) and in many sparrows. Countless others might be enumerated among the birds, and many among mammals.

The common hare is almost indistinguishable when at rest or feeding in its haunts, but when it takes flight nothing could be more conspicuous than the upturned white tail by which it guides the young to the burrow. Precisely the same provision appears in the case of the Virginia deer, while a black spot serves the same purpose in the black-tailed deer. The common weasel is brown in summer and white in winter, but the tip of its tail is always black.

To gregarious animals safety is with the pack; isolation means danger. Accordingly we find many markings among these which are manifestly to enable the animal to recognize its kind. Wallace, in *Darwinism*, gives many illustrations, drawn chiefly from the deer, antelope and related families.

### IV. CALL NOTES OF BIRDS AND MAMMALS

Similar in significance to the phenomena just mentioned, but involving a much larger mental content, are the sounds and signs by which the parent summons the young and, among gregarious animals, the individual calls the social group to give information of food. Very familiar examples are the clucking and the picking at food of both the hen and the cock. With these belong certain cries of animals that rally the band to the pursuit of prey, like the baying of hounds and the howling of wolves.

### V. ALARM CRIES AND DANGER SIGNALS

These are very common. No country-bred lad could forget the note uttered by the chick when it is alarmed, or fail to associate it with the response of the hen. Every one is familiar with the piercing alarm cry of the robin, and the promptness with which it brings the absent mate, and often others of the species, to the defense of the threatened nest or young. In almost every species of birds these alarm notes are now recognized and recorded by students of bird-life.

Among mammals we find similar manifestations of danger to the offspring, though they are not always vocal, as in the case of the warning stamp of the rabbit and hare, and a like sign among sheep and chamois. Among gregarious animals this custom of announcing danger has been extended to include all who are in the same social group. It is usual for the bird that is alarmed to give the signal which alarms the flock. It is a familiar fact that when crows are feeding upon the ground one or two of the flock are almost invariably found perched upon a tree or other eminence, ready to warn the flock of approaching danger.

Rocky Mountain sheep "post sentinels wherever they are feeding or resting who watch for and give warning of the approach of danger. . . . Prairie dogs tell each other by shrill cries of the approach of danger." (Jordan & Kellogg, *Animal Life*, page 166.) Darwin says in *The Descent of Man* that "many birds and some mammals post sentinels, which in case of seals are said generally to be the females. The leader of a troop of monkeys acts as the sentinel and utters cries expressive both of danger and of safety." If the phrase "post sentinels" in these two quotations is too anthropomorphic there is still no doubt that the instinctive conduct of the animals serves the end indicated by the words.

The alarm cries of birds are frequently effective in summoning representatives of other species than their own. I have frequently seen birds of another species respond to the alarm note of the robin. Several times during one summer I saw birds of five species collected within a few seconds by the cries of one bird that had discovered an owl—a common enemy of all.

### VI. CHALLENGES TO COMBAT

Among those species in which there is a combat among the males for the possession of the female there is often seeking of the contest rather than attempt to avoid it. The male challenges his rivals. So must we often interpret the crowing of the cock. Edwin Sandys says of the ruffed grouse, "He chooses some spot which suits his fancy, and from it sends

notice to all males and females within hearing that he is ready for engagements—either way, love or war, or both. He usually gets both. The challenge is not a vocal effort, but the well known drumming, a most peculiar sound." (*Upland Game Birds*, page 174.) The hunter calls the moose to his doom by counterfeiting its similar challenge to rival bulls.

### VII. HONEY SIGNS AND GUIDES IN FLOWERS.

Not only do we find faithful, though unconscious, revelation of fact among creatures of the same kind, and between different species that have a common interest, but even between organisms as remote in their relationships as plants and animals. This finds illustration in those plants that depend upon insects to secure cross-fertilization. Says Darwin, "Not only do the bright colors of flowers serve to attract insects, but dark colored streaks and marks are often present, which Sprengel long ago maintained served as guides to the nectary." (*Cross and Self-Fertilization in the Vegetable Kingdom*, page 372.) He states at length his reasons for the same conclusions. Flowers that are fertilized by night-flying insects are usually white that their invitation may be the more readily conveyed in the darkness, and the store of honey is further advertised by odor in nearly every case. Darwin demonstrated that this is the real significance of the perfume by covering the plants from sight with muslin cloth, and observing the insects still attracted. Some of our most fragrant flowers, for example the mignonette, have very inconspicuous blossoms: dependence upon only one mode of announcing its sweets has led to a high development of fragrance.

While accurate representation of fact is seen to play a large part in the lives of creatures below man in the scale of development, there are other phenomena which require consideration for the purposes of this study. Out of the necessity for co-operation truthfulness, in the sense in which it appears among these creatures, has been born; but the competitive struggle for existence has been another prominent factor in the shaping of life, and in it conscious or unconscious deception has been one of the means of survival. Its beginnings are found low in the scale of life. Perhaps the earliest and most simple of the familiar forms is

### I. GENERAL PROTECTIVE COLORING

The remarkable resemblance in color between many forms of animal life and the environments which they habitually frequent is familiar to the most careless observer, and is obviously a means of misleading their enemies. The colors and markings of the grouse, quail, and hare are so nearly like those of the

fallen leaves, dried grasses and decaying stumps that hunters and predaceous animals, whose whole attention is centred on their pursuit, rarely see them until motion reveals them in flight. The sportsman may see snipe or plover fall at his shot, and may carefully mark the place, but so perfect is their likeness in color and marking to the general effect of the marsh grass and the stubble that he often finds it impossible to retrieve them when unaided by the keen scent of his dog.

Butterflies, which are especially exposed to danger when taking their food, rival in brilliancy the flowers upon which they rest. Caterpillars which feed upon leaves are usually green, except in case of those that feed at night: these usually resemble the bark upon which they rest during the day.

The backs of fishes resemble in color the weeds among which they feed, as in case of the vertical bands of the perch and reticulated markings of the pickerel; or, as in case of the trout and the catfish, the pebbly or muddy bottoms of the streams or ponds which they inhabit. In both the latter cases, and commonly in species that feed near the surface, the bellies are white that they may be inconspicuous as seen from below. Species that inhabit the ocean at depths where darkness continually prevails are violet colored above and below.

The form of the tree toad is as completely lost upon the mottled surface of the tree trunk or the lichen-covered fence rail as is that of the horned toad in the desert sand.

Not only are the bear, the fox, the hare, the ermine, the owl, the ptarmigan, and other arctic species white, but in those species whose habitat reaches the temperate zone there is a change of color during the summer months so that harmony with the environment is maintained when the ground is not covered with snow.

It has many times been observed that the black trout of muddy streams, when placed in brooks, soon duplicate the appearance of the bottoms in the lighter and broken markings of their backs.

The chameleon and some common insects possess the power to almost immediately assume the color of the surface upon which they rest. In this change there is a psychic element, for it is mediated in sight. It has been shown by experiment that it does not occur in any animal that is blind. Some fishes, notably the grass porgy, show the same quick response to environment in changed color.

## II. SPECIAL PROTECTIVE RESEMBLANCES

These are especially common among insects. A common example is the "walking stick" (*Diapheromera*) which exactly counterfeits the appearance of a lifeless twig. Another exam-

ple from the same family is the green leaf insect (*Phyllium*) of South America. It "is of a bright green color with broad, leaf-like wings and body, with markings which imitate the leaf veins, and small, irregular yellowish spots which mimic decaying, or stained, or fungus covered spots in the leaf." (Jordan and Kellogg, *Animal Life*, page 210.) Still more remarkable is a large butterfly (*Kallima*) of the East Indies. "The upper sides of the wings are dark, with purplish and orange markings, not at all resembling a dead leaf. But the butterflies when at rest hold their wings together over the back, so that only the under sides of the wings are exposed. The under sides of Kallima's wings are exactly the color of a dead and dried leaf, and the wings are so held that all combine to mimic with extraordinary fidelity a dead leaf still attached to the twig by a short pedicel or leaf stalk imitated by a short tail on the hind wings, and showing midrib, oblique veins, and, most remarkable of all, two apparent holes, like those made in leaves by insects, but in the butterfly imitated by two small, circular spots free from scales and hence clear and transparent. With the head and feelers concealed beneath the wings, it makes the resemblance wonderfully exact." (Alfred Russell Wallace, *The Malay Archipelago*, Vol. I, page 203.)

Many larvæ of geometrid moths bear a wonderful resemblance to little twigs of the trees upon which they feed. In some species certain irregular humps and markings exactly resemble the scars left by fallen leaves. When at rest they stand out obliquely and stiffly from the twig, and are provided with special adaptations of the muscular system which enable them to keep this position for hours. Jenner Weir says of one of these species, "After being thirty years an entomologist I was deceived myself, and took out my pruning scissors to cut from a plum tree a spur which I thought I had overlooked. This turned out to be the larvæ of a geometer two inches long. I showed it to several members of my family, and defined a space of four inches in which it was to be seen, but none of them could perceive that it was a caterpillar." (Nature, Vol. 3, page 166. Quoted by Wallace.)

The value of the protective coloring of nearly all birds and mammals is greatly increased, when the animal is frightened, by the instinct which Ernest Thompson-Seton has called "freezing." At the first hint of danger the creature assumes a posture which suggests some common feature of the environment and remains motionless until discovery is imminent, when flight is resorted to as the second best means of escape.

### III. CONCEALMENT BY ADVENTITIOUS MEANS

The larvæ of some of the lepidoptera make cases for them-

selves of the foliage upon which they feed. The same means of concealment is used by the clothes moth. The cocoons of some moths are concealed among the leaves of their food plants.

The larva of the caddis-fly makes for purposes of concealment as well as protection a case of sand, vegetable fragments, etc. Many mollusks accumulate sand upon the surfaces of their shells, and some sea urchins completely cover themselves with pebbles, shells, etc.

Certain crabs (*Stenorhynchus*, *Inachus*, *Pisa*, *Maia*, etc.) tear pieces of seaweed from the plants and, after softening the ends by chewing them, deliberately fasten them among the peculiar curved hairs that cover their bodies. Sea anemones, sponges, etc., are collected and used in the same way by other species. (*The Colours of Animals*, Edward Bagnall Poulton, page 78.)

The ruby-throated humming bird, which saddles its tiny nest upon a branch, covers it carefully with lichens, so that it presents the exact appearance of a knot.

#### IV. MIMICRY OF PROTECTED SPECIES

Mention has been made of the warning marks by which certain inedible or aggressive species of insects and reptiles are recognized, and which secure them freedom from attack. Many edible and harmless species have obtained like immunity for themselves by mimicking these warning signs.

One of the most common large butterflies of the United States is the Monarch (*Anosia plexippus*). The prevailing color is orange-brown with black veinings. This is an inedible species. A genus of edible butterflies (*Basilarchia*) is made up, with two exceptions, of species that are black and white, and have the colors disposed in large masses. One of these exceptional forms is orange-brown with veinings of black, and is usually mistaken for the inedible Monarch by the untrained human observer as well as by its enemies among the birds. Another similar case of mimicry occurs in the same genus.

In a preceding section reference was made to the female of the large moth *Callosamia Promethia*, which emits an odor by which the males are attracted. Like both males and females of other related species of moths, the female Promethia flies only at night; but the males of the species seek the females by day. They are thus exposed to greatly multiplied dangers, particularly from the attacks of birds. Hence they have departed largely, both in form and color, from the type of the species in mimicry of an inedible butterfly of the genus *Papilio*.<sup>1</sup>

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<sup>1</sup>This statement is based upon unpublished investigations of the writer.

Probably the most remarkable case of protective mimicry known is that of a South African butterfly (*Papilio cenea*—later called *P. merope*), an account of which is found in the *Linnean Society Transactions*, Vol. 26, pages 497-532, and a quite full description with colored plates illustrating the various forms of mimicry in Poulton's *The Colours of Animals*. In his summary of the facts Mr. Poulton says, "Three well known species of *Danais* occur in Africa, each of which is mimicked by a special variety of the female of *Papilio merope*; two of the *Danaidae* present two varieties in the region over which they are accompanied by *P. merope*, and some of the females of the latter undergo corresponding changes; intermediate varieties occur, and also connect one of these forms with a fourth variety of the female." That is, in this species the female is always totally different from the male in appearance, and in different forms mimics three species and four varieties of another genus. In a very closely related species found in Madagascar the female is almost exactly like the male, these changes having been brought about in *merope* by the value of the protective resemblance.

Among insects protective mimicry has been carried to great lengths, there being many cases in which it occurs between species of different orders. Bees and wasps, having gained immunity by their venomous stings, have been mimicked in many cases. Certain butterflies and moths have discarded the wing scales, which are so characteristic as to have given the name to the order to which they belong, and have developed other resemblances to bees and wasps. Certain flies very closely resemble bees in color and form, and even in the buzzing sound of their wings and in movements which counterfeit the attempt to use a sting. Certain spiders dwell among ants which are inedible. They not only resemble them very closely in form and color, but have developed ant-like movements totally different from those of other spiders, and turn the seeming disadvantage of an extra pair of legs to account by carrying the first pair raised from the ground in such a position as to mimic the antennæ of the ants. Several grasshoppers closely imitate inedible beetles in appearance. Hudson mentions (*A Naturalist in La Plata*, page 127) a grasshopper that closely resembles a wasp and imitates the movements of stinging. A beetle found in Borneo has departed from the type of its order to a very extreme extent that it may gain immunity through a remarkable resemblance to a conspicuously marked wasp which is found in the same localities. Wallace in *Darwinism* (pages 233-267) gives many similar illustrations.

Mimicry of protected forms is not common among vertebrates, but a few remarkable instances are known. Among these are

several harmless snakes which mimic the brilliantly colored venomous coral snakes previously mentioned. Wallace says that snakes of three genera belonging to other families mimic various species of *Elaps*, two harmless species imitating the same venomous form. In some cases the likeness is so great it is with difficulty that the species can be separated. Many harmless snakes flatten the head, hiss and make aggressive movements when in danger.

Among birds there are a few clear cases of mimicry. One of the less striking is that of the cuckoos, very weak and defenseless birds, which in color and markings suggest the sparrow hawks. In case of one species the likeness is so great that it has given rise to the myth that they are hawks in disguise.

More remarkable is the resemblance between certain weak and timid orioles of the Malay archipelago and the powerful and aggressive friar birds (*Trochilus*) which are well armed with beak and claws and are able to repel hawks. Says Wallace, "In each of the great islands of the Austro-Malayan region there is a distinct species of *Trochilus*, and there is always along with it an oriole that exactly mimics it." (*Darwinism*, page 263.) The resemblance between these birds of widely different families has several times deceived naturalists when the preserved specimens were before them, and one of these orioles is actually described and figured in a great French book of travel as belonging to the imitated genus. Forbes says that he was puzzled by the peculiar behavior of certain individuals in flocks of honey-eaters which he observed. Later he discovered that here was another similar case of protective mimicry. He says, "Only after the closest comparison of the dead birds in my hands was the enigma solved by my perceiving that the birds were of distinct species." He adds, "When my collection was laid out for description by Dr. Sclater, the Oriole and the Honey-eater's dress were so strikingly similar that the sharp eye of that distinguished Ornithologist was deceived, and the two birds were described by him as the same species." (*A Naturalist's Wanderings in the Eastern Archipelago*, page 337.)

Closely allied to protective mimicry is the use of terrifying appearance of a more general nature. Among insects there are many cases in which form, markings, or movements suggest a likeness to a venomous reptile or gave a generally formidable appearance. The larvae of certain sphinx moths bear upon the tail a horn-like appendage which is popularly supposed to be a sting. In my boyhood I was warned many times that the sting of one of these common larvae was fatal. The popular belief that this appendage is an organ of offence

is strengthened by the way in which this part of the body is jerked from side to side when the insect is disturbed. Several other large caterpillars, when alarmed, retract the head and the first few segments of the body within the adjoining rings. These are thus swollen, and the large eye-like spots on them give the perfectly harmless creature the appearance of a serpent. Bates tells of receiving a severe fright the first time that he attempted to capture one of these caterpillars, and Poulton describes experiments which demonstrated the effectiveness of the device in deterring lizards from attacking them. G. Marshall tells of two baboons that were greatly terrified by a sphinx-moth larvæ, some seven inches in length, which has large blue, eye-like spots near the tail. He says, "Their fright was ludicrous to see; with loud cries they jumped aside and clambered up the pole as fast as they could go, into their box, where they sat peering over the edge watching the uncanny object below." (Quoted by *Jordan & Kellogg, Evolution and Animal Life*, pages 418, 419.)

#### V. TRICKERY AND CUNNING

Under this head may be grouped devices by which the fox escapes the hound and obtains his prey, and similar habits of the raccoon, the monkey, and perhaps other animals. The devices of the fox may be taken as typical of this group. He frequently attempts to elude the hounds by doubling or turning back upon his trail, and also by running in flowing water which takes away his scent. He is also credited with running among sheep in the fields that the trail may be obscured, and with running for some distance upon the top of a stone wall. Many more elaborate devices for concealment and deception which are related by the "nature fakirs" are hardly worthy of credence without better substantiation.

Many animals ranging from insects to mammals seem to simulate death in time of danger. In case of some insects simply dropping to the ground and remaining motionless enables the creature to escape notice, but among the higher animals the phenomenon is certainly interpreted as death by their enemies, and is effective for the preservation of the creature for that reason. Hudson (*The Naturalist in La Plata*, page 20) says of the fox, "The deception is so well carried out that dogs are constantly taken in by it, and no one not previously acquainted with this clever trickery of nature but would at once pronounce the creature dead."

Different writers ascribe this instinct to insects, spiders, reptiles, and fishes. Hudson mentions seven species of birds and mammals that manifest it. The most familiar examples among mammals are the opossum, the fox and the red squirrel. The

trait is attributed to monkeys, but I have found no definite data.

Bateson is "sure that the animal does not lose consciousness," but there is no agreement as to this point, and the psychic elements involved in case of the higher animals have not been fully determined. A full solution of the problem would not be likely to add anything to the value of this study, for if intelligence is involved there is no probability that there is any conscious deception.

#### VI. CONCEALING OR ALLURING RESEMBLANCES FOR AGGRESSIVE PURPOSES

In many cases the same provisions that are effective for the concealment of a creature from its enemies also favor the approach of its prey as it lies in wait. For example, a spider while it seeks the insects upon which it feeds sits motionless upon a branch and resembles a woody knot. Another spider under similar circumstances sits at the base of a leaf and has the exact appearance of an axillary bud. (Henry W. Bates, *The Naturalist on the River Amazon*, page 54.) Such illustrations might be multiplied to a great extent, but it is difficult in these cases to determine whether the resemblance is aggressive or protective in its significance. In others, however, it is clearly alluring in its nature.

H. O. Forbes (*A Naturalist's Wanderings in the Eastern Archipelago*, page 63) gives an interesting account of a spider which, as it rests upon a leaf, exactly resembles the excretum of a bird, which is especially attractive to certain butterflies. The spider, when displaying the alluring resemblance, lies upon its back with the feet ready to seize the insect upon its approach. Another naturalist tells how he was deceived by this appearance until he touched the creature with his finger.

"A whole family of spiders, which live in flower cups lying in wait for insects, are white and pink and parti-colored, resembling the markings of the special flowers frequented by them. This is, of course, a special resemblance not so much for protection as for aggression; the insects coming to visit the flowers are unable to distinguish the spiders and fall an easy prey to them. (Jordan & Kellogg, *Evolution and Animal Life*, page 415.)

An Indian *Mantis* has flattened legs of a pink color which are so disposed in relation to the body that the whole insect when at rest has the appearance of a flower. It feeds upon the insects that are attracted by this resemblance.

The group of fishes called the anglers possess one or more slender filaments which dangle before the mouth a natural bait resembling a wriggling worm. The small fishes that are at-

tracted in this way form the food of the angler. In one closely allied deep-sea species the bait is phosphorescent, making it especially attractive in the semi-darkness of the ocean's bottom.

A species of lizard (*Phrynocephalus mystaceus*) in "its general surface resembles the sand on which it is found, while the fold of skin at each angle of the mouth is of a red color, and is produced into a flower-like shape exactly resembling a little red flower that grows in the sand. Insects, attracted by what they believe to be flowers, approach the mouth of the lizard and are, of course, captured." (Edward Bagnall Poulton, *The Colours of Animals*, page 73.)

There has been attempt in recent years to disprove the theories of protective coloration, warning colors, and protective mimicry, which have afforded many illustrations in the foregoing pages, but without success. F. E. Beddard has reviewed the work of Weismann, Jenner Weir, Poulton, Butler, Bates, and others (*Animal Coloration*, pages 83-253), and while certain supposed cases of warning colors and protective mimicry seem to be weakened if not discredited, the general conclusions are affirmed so far as they affect the purpose of this study. Jordan & Kellogg in *Evolution and Animal Life* (1907) discuss the attitudes of different scientists toward the theories, and state that the trend of opinion is decidedly in favor of them. They say (page 402) that most naturalists "believe that this kind of usefulness is real, and that it is the principal clew to the chief significance of color and pattern."

## VII. DEVICES FOR THE PRESERVATION OF THE YOUNG

Some birds, for example the bobolink, when leaving the nest always run for some distance upon the ground before taking flight, that their enemies may be misled as to its location. The peculiar instinct of the great crested flycatcher, which constructs its nest in the hollow of a tree and invariably introduces one or more cast skins of snakes into its structure, is best explained as affording protection to the eggs and nestlings, which are especially likely to be attacked by squirrels.

Among our common birds the Virginia quail, the ruffed grouse, the Savannah bunting, the oven bird, and a large number of others lead enemies away from the vicinity of the nest or callow young by feigning a broken wing and fluttering along the ground just out of reach of the pursuer. The same instinctive action is reported of many foreign species as well.

### EXCEPTIONAL CASES

In closing the account of these phenomena it should be observed that the classification on the basis on the ends served is largely artificial, and that in nature the dividing lines are not

clearly marked in many cases. All the apparent exceptions and blendings of type are of interest, and many are suggestive in connection with the present inquiry.

In many species of sparrows there seem to be no recognition marks of the species that are apparent in color or marking. Even the ornithologist must depend upon the relative length of wing feathers and similar obscure signs which can only be determined when the bird is in the hand if he would decide to which species the individual belongs. But the habits of these birds are so similar that they are found migrating and feeding in company and heeding each other's alarm notes as if they were of one species. It is only when mating time comes that it is necessary that they should be clearly distinguished from one another. It is probable that the tendency to seek certain environments, peculiar call notes, and perhaps odors, furnish the recognition marks of species and sex.

It has already been pointed out that resemblance to the environment may be at the same time protective and aggressive. It is also true that the same marking may be at one time veracious and at another deceptive. An interesting illustration is found in the case of the willow ptarmigan. The tail of this bird is always black, and serves as a very effective recognition mark of the species as it is conspicuous in flight. In winter the bird is entirely white except for this marking. Strange as it may seem at first thought, it now serves for purposes of protection. Edwin Sandys says (*Upland Game Birds, page 223*), "Every projection above clean snow is apt to cause a more or less decided shadow, and this causes a darker spot. This the black tail of the crouching ptarmigan so closely imitates that the intelligent observer cannot fail to detect Nature's purpose in the one peculiar mark."

#### SUMMARY AND INTERPRETATION OF THE PRECEDING FACTS

An attempt to summarize the facts that have been presented, to determine their relations to the development of truthfulness and veracity, and to formulate some general conclusions based upon them yields the following results.

(1) The earliest forms of the revelation of self seem to have been made by appeal to the primitive tactile sense, and later by means of odor, form, color, attitude, gesture, and mechanical and vocal sound. Following simple response of the material organism to natural selection in the matters of form and color, there arose special adaptations of the muscular system with nervous equipment for their control, tendencies to utilize customary movements for this special purpose, the development of special organs of expression, and finally codes of signs with highly developed instincts governing their use. In case

of some of the higher animals intelligence may possibly be involved, but even then there is rather a selection of the most economical means to accomplish an end than any purposed or conscious deception. Truth or falsehood occur here only in the objective sense of correspondence or lack of correspondence between fact and representation. *In the prefigurings of deceit and veracity in life below man's we can detect no moral element.*

The most that we can gain, then, from a study of these phenomena is an estimate of the parts which unconscious ingenuousness and misrepresentation have played in the processes which have prepared the way for the psychic life and the social relations of man, and a knowledge of the embryonic stages of the development of ethical truthfulness and falsehood.

Seeking to ascertain the attitude of nature toward truth and falsehood in this objective sense we find that

(2) The nascent forms of veracity which have been enumerated had their origin in the necessity for co-operation. They arose very early in connection with procreation, appeared next in the relation of parents with offspring, and later in connection with the relation of adults of the same species, and finally of different species, with each other. In the cases studied it is invariably associated with the essential functions of life, and after life has risen above the primitive stages some of these functions could not be performed without it. *Veracity is universal in certain especially important relations, and is of fundamental importance in the life of the individual and in the cosmic process.*

(3) Misrepresentation occurs as an aid to the escape from enemies, as an aid in obtaining food, and as a means of protection for the young. Apparently it had its origin later than the primitive forms of self-revelation. In every case it is self-preservation or the preservation of the species that gives occasion for the deception, and in none of these cases does it seem to be absolutely essential to this end, though in many it plays a very important part. *Deceit makes its appearance only as an aid to the preservation of life, is occasional in occurrence, and has a secondary rather than a primary importance in the life history of the animal.*

(4) A comparison of the readily accessible accounts of the various forms of instinctive veracious and deceptive self-expression in animals confirms the general principles that might be deduced from the laws of natural selection. These are (a) that where the revelation of any fact gains the aid of another organism in any important function of life, veracity is the rule: (b) where the revelation of any fact increases the danger from enemies or the difficulty of obtaining food, it is often concealed; and (c) where knowledge of the fact results in neither benefit

nor injury there seems to be neither announcement nor concealment. It is interesting to note that an examination of the phenomena as recorded seems to yield no illustration of the practice of deceit between individuals of the same species. Even where competition is strong there seems to be no concealment of fact to avoid conflict, but rather a seeking of the struggle which will result in the elimination of the weak. The benefits of co-operation, made possible by veracity, so far overbalance those that might result from the lack of ingenuousness in the species that misrepresentation seems to have no place. *Nature's rule is, deception for enemies, truth for friends; and the rule holds good between those who are friends by racial inheritance, even where there is direct conflict of interest in the case of particular individuals.*

(5) Reviewing the data once more from still another point of view, it appears that deception is much more common among the less virile and aggressive forms of life. The larger number of cases are found among insects, and after this group among the weaker reptiles and birds. Among insects it rarely if ever appears among forms like the larger hard-shelled beetles or the sting-armed wasps and bees. It is in the rabbit, the squirrel and the fox rather than the ox, the wolf, the bear or the lion that it finds its highest development among mammals. Very commonly it is associated with fear in its mission of self-preservation, and when it takes an aggressive form as an aid in obtaining food, it is usually in one of the weaker forms of a group. *In the economy of nature, deception is the weapon of the weak.*

(6) Closely related to the preceding, but even more significant in its moral implications, is the fact that with the development of intelligence and the higher instinct-feelings the general tendency is away from deception and toward larger revelation of fact. And this is not inconsistent with the fact that the discovery of the power to deceive may have done much to sharpen the dull wits of our primitive ancestors. It is at best but a stepping-stone to the first stages of the upward-leading path of intellectual development.

Sutherland (*Origin and Growth of the Moral Instinct*, Vol. I, pages 28, 29) makes a distinction among the characters which favor survival of the individual or the species on the basis of their intrinsic and permanent value as aids to development to a higher type. In the one case "it is only a trick, a mere accident which nevertheless is potent for safety;" in the other there is "a step, however small, on the path to a nobler type." "Dologeny . . . is the process of breeding from the craftiest or most tricky of the race." "Aristogeny . . . is the process of breeding always from the best." The devices of the first type are "but side tracks leading to blind ends;

while the other is the high road to development." While he describes "Aristogeny" as referring to completeness of nerve development, it is evident that a trait which tends toward more aggressive or active triumphs over the difficulties of an unfavorable environment, and toward greater co-operation of individuals, belongs in the same class.

The creatures in whom deception has reached its highest development do seem to be for the most part those which have departed far from the line of ascent which has produced man. *The tendency of evolution seems to be toward the elimination of deception as the scale of intellectual and emotional development rises.*

There still remain for consideration two very important groups of psychic activities in animals which have relation to the subject of this study, but which do not readily fall under the same categories as the preceding phenomena. The first of these includes the various forms of

#### SELF-DECEPTION IN PLAY

This finds illustration in the hunting and fighting plays of the carnivora and the playful combats and games of flight and pursuit of some of the herbivora. The playful butting of calves, lambs and kids; the tussling, wrestling, and biting of foxes, dogs and monkeys; the pursuits, seizing, and scratching of kittens and young raccoons, and the playful attacks of many of these upon their human masters are familiar examples of these activities. As Groos indicates, there is probably no conscious self-deception in the case of the younger animals, but when their powers of combat are well matured and there has been experience of serious struggle, and still the playmate is never harmed except in case of unusual excitement, it would seem that this self-restraint must imply some realization that the experience is a sham.

In case of the hunting plays there seems to be no reason to doubt that there is conscious self-deception. The cat, having killed the mouse, continues the play by tossing it in the air and springing upon it as it falls to the ground, turning from it and walking away, only to creep back and seize it with every appearance of cunning and stealth. Consciously or unconsciously both the cat and the dog often make the ball or other inanimate object represent the prey which they commonly pursue. At times the creature may be actually misled by a swiftly moving object and suppose it to be an animal, but in such cases the appearance of disappointment when the mistake is discovered is very noticeable. Even when play with the object is indulged in immediately afterward the change in the mental attitude is clearly apparent.

In all these hunting and fighting plays the movements are those of the species when engaged in the serious activity. The kitten springs and seizes with the claws; the puppy runs and seizes with the mouth. In every case the characteristic movements of the adult appear in the play of the young. Whatever theory of play is adopted, no one would question the value of these activities to the creatures which engage in them. They seem to be in every case a means of training for the serious occupations of life. However much of recapitulation may be involved in the origin of these instinctive self-deceptions as studied from the standpoint of the history of the race, their significance from the standpoint of the life history of the individual clearly seems to be anticipatory in large measure. *Self-deception in play is educative in effect.*

The last group of phenomena to be considered are those which reveal

#### VERACITY AND DECEPTION IN DOMESTICATED ANIMALS

This field is an especially difficult one for several reasons. First of all, the amount of data which has any scientific value is exceedingly small; most of the stories of domestic animals now accessible having been recorded by those who have manifestly attributed human motives and human psychic processes to them. From such a story it is usually impossible for the psychologist to extract the element of fact. Again, we have as yet little exact knowledge to aid us in fully interpreting the conduct of animals under the very abnormal conditions of domestication. The account of the effects of habitual intimate association with man upon the psychic life of the lower animals, both as regards the species and the individual, will form one of the most interesting and perhaps one of the most illuminating chapters in psychology, but so far as the writer knows it is hardly begun as yet.

That the modifications due to domestication are very great is apparent in several ways. (a) Because man has provided food, controlled breeding, afforded shelter, and in fact usurped the place of nature in relation to most of the crises of their lives, the hereditary instincts of the species are rapidly broken down. A familiar evidence of this is found in the fact that strange sympathies develop and unusual fellowships are formed, sometimes between creatures that are deadly enemies in a state of nature. The dog, perhaps chiefly because of his long association with man as a member of his household, has been most molded in his mental as well as his physical nature. Such friendships are recorded between dogs on the one side and elephants, horses, deer, sheep, monkeys, badgers, raccoons, rabbits, cats, and hens, and doubtless many additions could be

made to the list. A smaller number of unnatural friendships are recorded of many other domesticated animals.

(b) Again, through association with man there has come a very marked increase of intelligence. In his wild state the dog must have been almost wholly governed by instinct, and this was true as well of his enemies and his prey. Under similar circumstances the reactions of all individuals of his own species would be substantially the same, and this is true of every other species with which he was associated. The changes of season, rhythms in the lives of species upon which he fed, and the alternation of day and night were constant qualities with which instinct could effectively deal. But in case of domesticated animals these conditions are changed. Seasonal variations have small effect, the ebb and flow of food supply due to migration, hibernation, etc., are eliminated, night is turned into day. No longer does he deal with the mechanized reflexes of instinct, but his welfare depends upon adaptation to the conditions of human life with its multitude of motives and its variety of conduct. He must gain some conception of certain forms of conduct as means to certain ends, and he soon begins to select, unconsciously at first, the easiest means that will obtain the desired result. So intelligence must develop much more rapidly than it could under the uniform conditions of nature.

(c) Domestication must also have greatly hastened and increased the development of self-consciousness and self-feeling. Among wild animals there is little to awaken the sense of personality. Some phenomena in connection with mating, and with leadership in the herd or pack, some among birds, such as the apparently triumphant crowing of the cock after vanquishing a rival, seem to indicate some such feeling. But these hardly rank with the well-authenticated cases of jealousy among animals under domestication. It is also difficult to lightly dismiss the evidence that some animals distinguish between the laugh of approbation and that of ridicule, and manifest some feelings of self-satisfaction and chagrin. This is to be expected from the fact that the creature is now compelled to adjust his own conduct to the peculiarities of personalities far more pronounced than appear in the world of wild nature, and that constant discrimination, approbation, and ridicule on the part of the master tend to stimulate the growth of self-consciousness.

Realizing that in this border land of instinct and reason there are great difficulties in obtaining correct data and in rightly interpreting them, we may approach the study of truthfulness and deceit as they find manifestation here. Domestic animals are frequently taught to announce certain facts, par-

ticularly those that concern their own wants. Both dogs and cats indicate their desire to enter or leave a room, often by very conventional signs. A cat which I observed for several years, in attempting to gain the attention of some member of the family and so secure entrance to the house accidentally rang the doorbell; the door was promptly opened, and after two or three such happenings the cat regularly used this means of making its desire to enter known. The dog, at least, may be taught to give information of facts that are not of direct interest to itself, and to do so with considerable discrimination. The watch dog not only barks at the approach of strangers, but he may be taught to disregard the advent of a well-dressed lady or gentleman, while he will vociferously announce the intrusion of a peddler or a tramp. This seems to be the result of habit-forming during the period of training. There are a considerable number of cases on record in which domesticated animals have made known to their keepers an injury to a mate or to another animal with which a friendship had been formed. Several cases are recorded by psychologists in which warning has been given of mischief done by another of the species. There are also stories of dogs which have spontaneously sought to give information of an injury suffered by their masters or others with whom they were intimately associated. Most of these actions, however, seem to be more closely related to fidelity than to truthfulness.

When we seek for deception among the domesticated animals there is apparently more to reward the search. Many incidents of animal life are cited as illustrations of deceptive conduct in the writings of the comparative psychologists. A case discussed by Lloyd Morgan (*Introduction to Comparative Psychology*, pages 373-5) is a fair illustration of the class. A terrier had been taught to earn a portion of dessert by walking on his hind legs entirely around a long dining table. It was noticed after a time that he would start the journey as usual, but after he had reached a point where he could not be seen by his mistress would drop to all fours, only to rise to the erect attitude before he again came into sight. To some psychologists this seems a clear case of purposed deception, but Morgan easily eliminates any necessity for such an interpretation. He assumes that when the dog was taught the feat he associated with the reward the starting and ending of the journey on two feet. There must have been many failures, at first, to maintain the erect position through the whole journey, but these conditions were always associated with it. The method which he followed, then, was simply the selection of the easiest means by which the reward could be obtained.

A similar intelligent choice of the easiest means that will at-

tain a desired end explains the many cases of dogs that limp or feign sickness to gain favor or to obtain a ride in a carriage instead of running beside it. Romane's case of a dog who was ridiculed for his failure to catch a fly in his accustomed way, and then made a pretence of accomplishing it, going through all the movements and counterfeiting the evidence of satisfaction, may probably be placed in the same class, though self-feeling rather than the desire for physical ease or pleasure furnished the spring of action.

Most writers since Morgan seem to accept his view that we find no evidence of conscious deception among animals, even in a state of domestication. Some, however, are not ready to yield to his arguments. Triplett, in his study of Conjuring Deceptions, says, "It is not so easy to believe that there is no actual deception in cases like this described by Groos. He says, 'I once saw one (dog) drop a piece of bread that he would not eat on the ground and lie down on it, then with an air of great innocence pretend to be looking for it.'" From the brief description given it seems difficult to establish any connection with deception on account of the lack of motive, unless it be the self-deception of play.

While it seems safe at the present stage of comparative psychology to reject the view that there is conscious deception in any of these cases, we do clearly find that new motives appear that lead to deception in the objective sense. Remembering the remarkable effects of the close association of these creatures with man in the breaking down of the natural order of their psychic life we cannot at present determine whether this is in the line of evolution or of the perversion of nature's orderly course. The conclusion from the facts may be formulated as follows:—*Among domesticated animals the desire for physical and emotional pleasures which are beyond the range of the creatures actual needs is a motive which leads to conduct that is intelligently directed and is untruthful in effect, though not in conscious purpose.*

#### THE LITERATURE OF THE SUBJECT

The only discussions of the relation of the facts which have been considered to the moral problems of truth and falsehood which have come to my attention are very brief and incidental. The first is in a lecture by Prof. Earl Barnes on "Truth vs. Lying." This valuable lecture has not been published, but in a report published in the Kindergarten Review, November, 1902, and in my own notes of the lecture, I find the statement that "falsehood is the highest form of virtue" among the lower animals. This statement (which as has been indicated is incidental to the main discussion, and for which Professor Barnes

perhaps ought not to be made responsible) is manifestly far from an accurate statement of the facts. We do not "at most find the animal telling the truth to its mate and its young." Truth has not evolved from falsehood, as seems to be implied, but has always played the more important and indeed the essential part.

The second reference is in Triplett's study of Conjuring Deceptions published in the *American Journal of Psychology*, Vol. 11, p. 439-510. The author bases his thesis largely upon his belief in "a universal instinct to deceive a biological tendency appearing throughout the animal world from simplest forms to the highest orders." Of such a *general* instinct I can find no trace. All of the primitive forms of animal deception are rooted in the self-preserved instinct. This gives off two branches, one aggressive, the other regressive. Objective deception occurs associated with both, but is not fundamentally related to either. In many of the cases in which it occurs it is, of course, instinctive, but it seems to be simply a means which is frequently used under many varying circumstances, rather than a uniform mode of reaction under any set of conditions which are common to even any large group of animals. It would seem to be as correct to say that there is a general instinct to run or to stand still or to climb trees.

#### THE RELATION OF OBJECTIVE TO SUBJECTIVE VERACITY AND UNTRUTHFULNESS

It remains to inquire what relation exists between this unconscious, objective veracity and deceit of instinctive animal life and purposed and conscious truthfulness and falsehood. The latter seems never to appear among the highest of the lower animals and yet is common among the lowest savages. Is there a vital relation between the two? If so, what is it?

The connection is real and important, and does not seem difficult to trace. In case of veracity, its necessity wherever co-operation is involved is apparent, and hence such further development of social feeling as came with the evolution of human life implies a progressive extension of the field in which it is essential, and an increasing growth of the impulse toward ingenuousness. Perhaps this principle alone is sufficient to account for the increasing emphasis on the moral duty of truthfulness as men have risen in the scale of civilization and culture. Certain minor exceptions to the general rule find ready explanation under its terms.

Among the higher animals, particularly when domesticated, we find nearly all the motives for deception which appear in children, leading to conduct which is deceptive in effect. Adding to these conditions the realization of the power to deceive,

accompanied by the low degree of social feeling which must have characterized that stage of development, and subjective or purposed deception must follow. The question is simply how this consciousness arose. Beyond doubt it was through the observation of this instinctive conduct, deceptive in effect though not consciously directed to that end, that the possibility of misrepresentation of fact for a selfish purpose dawned upon the mind of man or his prehuman ancestors. As has been already intimated this step seems to have been accomplished in those stages of development which filled the present gap between animal and human life, and so this belief is not capable of demonstration by direct evidence, but all that we know of the rise of the reasoning powers confirms this view. The experiential judgment always precedes the logical. Primitive reasoning is inductive, from effect to cause. It was the observation of natural phenomena that led to the discovery of nature's laws. The discovery of the simplest tools through the accidents of primitive life led to the apprehension of mechanical principles. So must instinctive deception have prepared the way for the conscious untruthfulness of which ethics takes account.

If this be true, there is no real break between the phenomena which have been considered and those with which parent and teacher are concerned in the training of the child. Evidence that there is none appears in the fact that we may observe in the child the transition from one to the other as the first inaccuracies of statement, due to vivid and uncontrolled imagination and lack of maturity of other intellectual powers, give rise to the use of misrepresentation under the stress of fear or self-feeling, and finally to the willful and deliberately planned lie: though the transition is doubtless commonly facilitated by the rebukes and warnings of adults who misinterpret the earlier stages.

#### PEDAGOGICAL IMPLICATIONS

One great value of the genetic point of view in psychological research is that when in the study of a problem we turn to young children or to the lower animals we find the same factors reduced to lower terms. Much light has thus been thrown upon moral problems which seem exceedingly complicated as we deal with them in the ordinary affairs of life. So the investigation of the facts under consideration should have real value for purposes of interpretation of the conduct of children and discovery of principles to guide parents and teachers. All the conclusions that have been reached should be of value to the teacher of morals.

Applying the principle of recapitulation, we may expect that

deceit and falsehood will be much more prominent among young children than among adults. But if the conclusions drawn from the facts are correct, we should find a strong tendency toward truthfulness which can be made the basis for a wise cultivation of the spirit of veracity even among young children.

Almost every type of children's lie is prefigured in animal life: the lie of self-protection, the lie of altruism, the lie of self-interest, the lie of self-feeling and the lie of imagination are clearly marked, and the generalizations already made in connection with their consideration seem to have real value for the teacher of morals. One of the most significant lessons is that so much of good is bound up with the instinctive deceit: the wheat should not suffer with the tares.

A study of each type of untruth will yield valuable hints as to its control. For example, the lie of self-protection is usually told to parent or teacher to escape the pains of punishment. A review of the generalizations made from the study of animal life suggest that when the disciplinarian appears not as an enemy but as a friend to the child this lie will be eliminated. And the tactful punishments and wise and affectionate discipline of the best homes does secure this result. Again, the "lie" of imagination is nature's device for the education of the child, as necessary for his mental development as physical play is for that of the body. When this is realized it will not be considered a moral problem, and imaginative play will not be unduly checked. The dangers that lurk about it will be controlled by clearly drawing the line between fact and fiction, and thus confining it to its proper place.

Many such practical suggestions as these the thoughtful teacher will gain from a consideration of the facts which have been so briefly reviewed in this paper. When to this line of study is added a study of the evolution of human ideals of truthfulness, with consideration of their perversions and abnormalities, and a careful investigation of the attitude of children and youth of all ages toward truthfulness and lying, it would seem that a broad and safe foundation for the effective pedagogy of truthfulness might be obtained.

## **REPORT OF THE COMMITTEE ON SCHOOL HYGIENE OF THE WORCESTER PUBLIC EDUCATION ASSOCIATION**

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While emphasizing the demand of health as primary importance, your committee would call attention to the fact that efficiency in school work depends largely on hygienic conditions of work. They would respectfully submit if it is worth while for the city of Worcester to expend \$600,000 each year for the education of its children it is worth while also to make the conditions such that these pupils can actually do the work they are supposed to do by regular attendance at the schools and by studying most efficiently while in the schools. The great injury to school work from epidemics of disease is well illustrated by the following sentences from Secretary Martin's last report to the Massachusetts Board of Education.

"In consequence of the presence of some infectious disease, chiefly diphtheria, scarlet fever or measles, during the school year of 1906-07, 318 schoolrooms were closed and classes dismissed. These rooms were in 70 towns. The classes included 12,122 children. The closure lasted from one day to four weeks.

"The waste of money involved in the cessation of work for days or weeks of more than 300 teachers and the loss of schooling suffered by the 12,000 children is a matter of no small moment; but what we may read in the statistics of diseases and defects not numerous or serious enough to cause the closure of the school is of much greater moment."

As we know too well, Worcester has had a large share of these absences and this waste of money on account of disease. It may be desirable to recount what means can be taken to control these common children's diseases. In recent years careful studies throw much light on this question. Let us consider separately the three diseases mentioned by Secretary Martin.

### **DIPHTHERIA**

During the last year a somewhat serious and persistent epidemic of diphtheria occurred, and several schools were closed for a few days on account of the disease. The difficulty in checking the epidemic seemed to be largely the fact that the disease is often carried by healthy persons or by those who have such a mild form of the disease that they are not aware

of it and continue about their work. As is well known, and as has been shown in this city, in some cases the Klebs-Löffler bacillus remains in the nose or naso-pharynx for weeks or even months after the patient recovers.

Probably the epidemic in this city would have been worse if it had not been for the work of the medical inspectors in the schools, but the experience in the past year shows that this is not sufficient, and it should be further perfected and systematized and supplemented by school nurses who can look after cases of disease in the homes.

The closure of the schools was a desirable and necessary action because it gave opportunity for an additional and desirable cleaning and disinfection of the buildings, and it tended to allay the anxiety of parents and children. But as a means of checking the disease it probably had little influence. In case of diphtheria with competent medical inspection it seems better to have the schools continue, because in this way it can be better controlled than when the children are on the streets and at home. Dr. Kerr, of London, has made careful study of this subject and in a recent report writes:

"It has been shown that school closure ought seldom or never to be necessary in elementary schools owing to the prevalence of diphtheria. With modern technique it is possible to discover those who are spreading the disease and to obtain their exclusion. The objections to school closure are that the 'carriers' are not discovered and isolated, and that there is not the least guarantee that at the end of the period of closure the children who are the cause of the spread of the disease will be innocuous. The closing of schools for diphtheria should be looked upon as a confession of impotence and defeat."

#### SCARLET FEVER

The precautions to be taken in case of scarlet fever are much the same as in case of diphtheria. School physicians and school nurses are necessary for the detection and control of the disease. Children suffering from the disease should be excluded from the school for six weeks in any case. The advantages of school closure do not seem to be definitely shown. Dr. Cohn, in an investigation in Germany, finds no special effect of vacation on the number of cases of this disease. But Dr. McCallom and others in this State have found the number of cases greatly decreased in the summer months. Until we have more adequate health inspection, closure will probably remain often necessary in this country.

#### MEASLES

There are three methods of managing an epidemic of this disease. These may be called the *laissez-faire* method, the

political method, and the scientific method. The *laissez-faire* method consists in paying no attention whatever to the disease and continuing school work as best one may in spite of it. This is the one perhaps most frequently adopted, but it results in the death of a considerable number of the younger children. The political method consists in paying no attention to the disease beyond the exclusion of individuals until the disease becomes so prevalent that the majority of the people in the district demand school closure. The result of this method is to allay panic, but it is of no value in checking the disease. The scientific method consists in closing the schools when it is of some use to do so. It is obvious from a hygienic point of view that unless we decide to pay no attention to the disease apart from excluding those who are ill and the members of the same family, the scientific method is the only one of any value. Hence this should be considered somewhat in detail.

Some important facts have apparently been established by modern studies, among them the following : the greatest number of cases of this disease are likely to fall in the kindergarten period between 3 and 6. The mortality from the disease is much greater in early years than later. Most of the fatal cases occur before the age of 10.

Measles, as everybody knows, is very contagious, especially in its early or catarrhal stage. After infection from 9 to 14 days elapse before the disease appears. Contrary to common opinion, it seems to be rarely if ever carried by a healthy person, and it is not, like diphtheria, liable to be carried by the patient after recovery. Only very rarely does a person have the disease a second time. When it occurs in school, three crops are likely to appear : first, a single case, then a few more, or sometimes the majority of the children who have not had it, and then a third crop including nearly all the rest who are susceptible.

An epidemic is likely to come in a large city every other year ; in rural places the epidemic is likely to occur every five or six years. In a city of medium size like Worcester it is likely to occur once in three years. A study of the cases reported by the Board of Health in this city for ten years made by Dr. Hodge shows that an epidemic occurred regularly every two or three years. Whenever a third or more of the children in the community have not had the disease, then there is sufficient susceptible material so that an epidemic is likely to occur.

The aim of hygiene is to postpone the disease to as late an age as possible. It should be kept out of the kindergarten at whatever cost to school work. The postponement of the disease to the elementary grades means that a smaller number of

children will have it at an early age. And the aim is also to make the time between epidemics as long as possible; for this again means that fewer young children will have the disease.

The objection may be made that postponement of the epidemic to the higher grades of the school will not save the younger children in the homes from contagion. This, of course, is true, but the children in the higher grades are likely to have fewer young brothers and sisters at home than children in the lower grades.

The scientific method of managing measles based upon the facts just mentioned consists of four things: first a complete registry of all cases, kept by the Board of Health, so that as soon as a case occurs in any school it will be possible to see just how many of the children have already had the disease. Second, in case of a kindergarten where a considerable part of the children are susceptible, closure of the class when measles becomes prevalent in the city, whether a case has occurred in this particular kindergarten or not, or else notification of all parents, warning them to watch their children carefully in case of colds or the like. Third, whenever a case of measles appears in a class, exclusion of all children of the same families who have not had the disease, and eight days after the first case appears in any class, closure of this class for a period of seven days, so that the second crop of cases will occur while the children are at home, together with notification of all parents to watch their children carefully. Fourth, careful instructions of both parents and teachers in regard to necessary precautions.

A good form for the notification and instruction of parents is that used in London. It is as follows:

(M. O. 19) LONDON COUNTY COUNCIL

Notice to The Parent or Guardian of	From The Head Teacher (Infant's Dept.) School.
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As a case of measles has occurred among the scholars in the class which your child attends, it has been decided to close the class until . Measles is an infectious disease. You are therefore cautioned, in the event of your child showing any signs of this disease, to keep from contact with other children or from exposure in public places until a fortnight shall have elapsed after exposure to infection. A child who appears only to have a slight cold may have contracted measles and be dangerous to others. Any child who

has contracted measles must not resume school attendance for one month.

Date

Signature.

Note

Measles may be a very serious illness in young children, and many die from it. The early symptoms are those of a cold, which may be at first slight, there is generally running at the eyes and nose, sneezing and possibly cough. Many children lose their lives because parents allow them to go out of the house, thinking that the indisposition is only a slight cold, when it is really measles.

As an illustration of the scientific method of dealing with measles we may take the experience of the city of Graz in Germany—a city of about the size of Worcester. The medical officer in that city, Dr. Eberstaller,<sup>1</sup> reports from the statistics at Graz during sixteen years that the total number of cases of measles was in round numbers 22,000, of which 853 proved fatal. Among the children of the first year of life the mortality in the eight epidemic years reported amounted to from 16 to 35%, among children from one to five years of age between 2.6% and 5.5%, among children from five to ten years from 0.1% to 0.3%.

Dr. Eberstaller's method is as follows: to give apparently his most successful experiences: In the city of Graz 2 cases of measles occurred in one class on the 17th of October, 1898. As in the previous year only 19 cases of measles had occurred in this city of 125,000 inhabitants there was likely to be a good deal of susceptible material. Hence, the class was closed beginning about eight days after the detection of the first case, namely, on the 25th of October, and kept closed until the 3rd of November. Among the pupils of this class only one further case appeared during the closure, and this on the 31st of October. Apparently, as a result of this action, no further cases appeared, except a single one, during the Christmas holidays. Dr. Eberstaller has tried this experiment 103 times during a period of eight years, sometimes with success and sometimes without. Forty-four of these cases of school closure were decidedly successful, there was complete and permanent arrest of the disease after instruction was begun again. In 10 cases no disease occurred during the time of closure, hence, these instances may be considered as unnecessary. In 28 cases there was apparently no result, since immediately after the school began cases of measles occurred and the class

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<sup>1</sup>Intern. Archiv of Schulhygiene, III, pp. 1-19.

had to be closed again or the first closure continued. In the remaining 21 cases the result was doubtful, as the same class some time later was attacked, the epidemic having continued outside the school.

Another successful instance was the following: in a girl's class of the People's School shortly before Christmas in 1905, two cases of measles occurred. Consequently the vacation was lengthened for two days in order to pass the critical period. During this time several cases were reported, but from January 12th on no case at all appeared in this part of the city, where there were 60,000 inhabitants.

Again, as a matter of school economy, it is important that a disease like measles should be treated scientifically. With the usual haphazard method a good deal of time is likely to be wasted, in the first place by the absence of children who have been exposed to the disease, and second by closure of the school after such action becomes useless. Here again, the experience of Dr. Eberstaller is significant.

An epidemic of measles occurred at Graz in the late autumn of 1895. The unscientific method was then in vogue. 2,878 cases were reported. No less than 83 classes were closed from two to three weeks on account of the measles. In round numbers 2,400 half days of school instruction were lost. Another epidemic of measles occurred in 1905. 2,825 cases were reported. In this instance the epidemic was treated scientifically. As a result only 45 school classes were closed and the loss of time amounted to only 360 half days of instruction. Hence, the school closure, after the first case appears, before the second crop, instead of increasing the loss of time is likely greatly to diminish it.

In regard to these diseases in general the following precautions are desirable:

First, registration of all cases.

Second, the exclusion of cases in compliance with the present State law.

Third, notification of parents whenever a case occurs in school.

Fourth, daily medical inspection supplemented by the work of school nurses to keep track of the cases in the home.

Fifth, closure of the school for measles, if possible, before the first case appears; if not, before the eighth day after the appearance of the first case, and this with notification of the parents.

The advantages of such a plan seem to be sufficiently demonstrated. Its adoption would prevent much illness and great waste of the pupil's time, and indirectly of the money of the tax-payers. Such a plan is sure to be adopted by the city of

Worcester in the not distant future. Its immediate adoption would save the lives of a considerable number of children.

#### TUBERCULOSIS

By DR. A. C. GETCHELL

Recent investigations have shown that the death rate among children from tuberculosis increases rapidly during the period from five to fifteen years, that is, during the average school age. A necessary inference from this is that the school life of the child has something to do with this increase. It is well known that tuberculosis is contracted most often by those confined within doors, and particularly by those who live in ill-ventilated, dark, dirty rooms.

It is furthermore definitely known that a considerable period of latency exists after the infection is established before active disease develops. Now consumption, active, pulmonary, tuberculosis, is most fatal between the ages fifteen and thirty.

Thus it is seen that those who may have tuberculosis succumb to it with increasing fatality from the age of five to that of fifteen, and those who do not have it are more liable to infection during those years. Our public schools are maintained for a public purpose, the training of boys and girls to be useful men and women. A useful man or woman must be a healthy one. They cannot be useful unless they are well. Moreover, considering this particular disease the function of the school should be not only to maintain in as good health as possible those who are not well but to prevent infection passing to the well. Therefore anything that will remove tuberculosis from school children becomes a public duty and necessity. The solution of this problem demands no expenditure of care or money beyond that required for the general hygiene of the school, only it makes this more imperative. The requirements are: adequate free space around school buildings, well lighted, well ventilated school rooms and a proper system of cleaning efficiently carried out.

In view, however, of the prevalence of tuberculosis among school children and its possible spread among them, also in view of the fatality and easy prevention of the disease if suitably treated, certain elementary knowledge of it should be taught both to teachers and pupils, such as the necessity of competent medical advice relative to continued ill health, particularly persistent coughs. Furthermore, cleanliness, particularly of hands, should be insisted on; and such practices as spitting on the floor, wetting the fingers in the mouth to turn leaves of books, putting pencils or other objects that may pass from one person to another in the mouth, should not be allowed, and the reason for their hurtfulness should be clearly explained.

## HEALTH INSPECTION

By DR. MARY E. BARRELL

The law of 1906, known as the medical inspection law, while requiring school committees or boards of health to appoint school physicians, and requiring examinations to be made at least annually of all school children, by the last section of the law makes it possible for any city council to nullify the law by refusing an adequate appropriation. By the first section of the law, trouble has arisen between the boards of health and the school committees, as it is not stated definitely which shall appoint the medical inspectors in the cities; but in the towns the board of health has no authority to carry on medical inspection. In Chicopee, Fall River, Lowell and Beverly, no appropriation has been made.

In only 186 of the 321 towns of Massachusetts, have appropriations been made, and medical inspectors been appointed. 61 of the remaining towns have appointed physicians, but as these towns have not received any appropriations of course the work has not been carried on.

In 68 towns, physicians have not been appointed nor appropriations received, 6 towns have made appropriations but no physicians have been appointed. The law of 1906 calls for an annual examination of the vision and hearing of all school children, the tests to be made by the teachers but prescribed by the State Board of Health. There being no expense to the towns involved in this examination no reasonable excuse can be offered for non-compliance.

The returns from 349 of the 354 cities and towns show that 432,937 children were examined by the teachers, and that 96,609 appeared to be defective to a greater or less degree in vision, and 27,387 in hearing. No provision of law exists by which parents may be compelled to seek expert advice, but it is the intention of the law that scientific examination by specialists shall be made in cases where defects are apparently revealed by the teacher's lists.

The returns show that notifications have been sent in 84,012 cases. Cases are numerous in which the most serious defects have existed for years, unknown to teachers, parents, and to the children themselves, and these cases are not confined alone to the homes of the ignorant. Reports of inspection have been received from only a part of the cities and towns, approximately of about 75% of the average membership of the public schools of the State, but these show that the work done has resulted in a marked degree in preventing the spread of contagious diseases, and in the discovery of many defects which can be remedied by treatment or operation if taken before the condition becomes chronic.

No thorough investigation has been made yet, to determine to what extent the various defects or disabilities found in the pupils have affected the work of these so-called defective children. A number of very interesting individual cases have been cited, and the improvement in the condition of this class alone would seem to more than repay the expenditure involved in the work of the medical inspectors.

It is impossible to make any general statement as to the duties of the medical inspectors, as the requirements are so different in the various cities and towns. In some, weekly visits are required with emergency calls; and others require daily visits. In many places no definite rules have been formulated. It is very desirable that uniform rules shall be decided upon for governing the work of the medical inspectors in all of the cities and towns, in order that the work shall be as effective as possible and productive of the greatest good to the school children of the State of Massachusetts.

In Worcester, in accordance with the "Act Relative to the Appointment of School Physicians," money was appropriated and 15 school physicians appointed at a salary of \$200 per year to carry on the work of medical inspection. The inspectors began their work Oct. 8, 1906. It was about this time that there were so many cases of diphtheria in the schools, and it seemed so hard to stop its progress. The inspectors rendered great assistance in helping to stamp out the disease. In the first three months 31 cases were discovered and excluded from the schools; three were walking cases, which were not very sick but capable of transmitting the disease to others, perhaps in its most malignant form. Some of the other acute infectious diseases excluded this last year were chicken pox 90, erysipelas 2, scarlet fever 7, tuberculosis 3, whooping cough 53, and measles 3.

There have been numerous diseases of the skin, including 189 cases of scabies, 432 cases of impetigo contagiosa, and 669 cases of pediculosis; various diseases of the eye, acute catarrhal conjunctivitis 92, trachoma 2, and other diseases of the eye not contagious, but which, if neglected, lead to serious defects of vision later in life; also numerous affections of the ear, which undiscovered and untreated would cause deafness eventually.

The discovery of the cases cited would more than justify the expenditure of the money appropriated for this work, but when to them are added the large number of other diseases discovered, it shows how important and necessary to the welfare of the pupils the work has become.

There has been little friction between the physicians and the parents, and nearly all seem to realize that the work done is

for the very best good of the pupils in every way. The inspection might advantageously be systematized under one responsible head—a specially appointed official as in New York City.

#### PLAYGROUNDS

By FRANK DREW

There are two ways of looking at the play of children. The one is that children play merely to work off their surplus energy. We are disturbed by their restless activity when they are shut in the house, or when in public we wish they would be seen and not heard. In these cases we are concerned chiefly with our own interests. We think if children had something to do, if only they were occupied, there would be no need for them to play. In accordance with this view we send them to school, and we commend the teacher who keeps them busy,—firmly persuaded it is only mischief that is found by idle hands. The other view of play is that the child in play practices the occupations of adult life. The girl provides for her doll; she keeps house; the boy tries to reproduce the activities of one business after another; and in so doing they are getting ready to take their parts in serious work. But business and house-keeping are only part of life. We live in a society whose welfare depends on the degree to which its members stand up to their share in the community life and co-operate for the common good. The boys and girls who play base ball and basket ball, who belong to literary societies and to other co-operative groups, are fitting themselves for a mutual interest in the future responsibilities of citizenship. Play is thus seen to be an invaluable element in a child's education; perhaps the chief.

To-day there is much interest in play as preparation for adult life, and there are many organizations in Europe and America which are doing much for the promotion of play and for the provision of play spaces. Boston, New York, Chicago, Washington, and many lesser cities are seriously attempting to provide for play needs, and the sums already spent add up to millions of dollars; and the approving interest is growing fast. The call for playgrounds is not to be confounded with the movement for more parks. The former are a necessity for children; the latter belong chiefly to adults.

The playground movement grew out of an effort to meet certain needs of the summer months. At that time the schools were closed and hundreds of young children were wandering in the streets. To care for this multitude provision was made by voluntary organizations for vacation schools,—the first of which "was started in the old First Church of Boston in 1866." In

1898 a beginning was made in Worcester by members of the Kindergarten Club. In 1900 the work was taken over by the Women's Club. For the younger children how to play was the main thing; for those over nine years of age the emphasis has been laid on manual training or industrial schooling. The Women's Club carried on this public-spirited service year by year, with results of great value to our city, until 1906, when a vacation school was maintained by the school committee for five weeks at the Ledge Street School. An appropriation by the City Council for vacation school purposes in 1907 was not made in time to permit of its use. Efforts to get the City Council and the School Committee definitely to take up these sections of public schooling have thus far been unsuccessful. The outlook is brighter to-day,—thanks in part to the labors of the Committee on Manual Training and Industrial Education of our own Association.

Interest in an industrial education has grown rapidly in recent years. Indeed there is some danger there will be all work and no play the year through for boys and girls of all ages. To present the value of play as an important agent in the development of character and the maintenance of health, not for children only, but for everybody, is the aim of the playground movement. In provision for play Worcester has made a good beginning. The police department sets aside portions of certain hilly streets for coasting. The park commissioners clean the snow off the ice in Elm and University parks for skating. Thousands of persons use these wise provisions for winter sport. A fair supply of play apparatus is to be found in Lake and Hadwen parks; Crompton and Greenwood parks are playgrounds; and ball grounds are to be found in Lake and East parks. Here is a good showing of good work well done. Yet the ones who know most about the work—The Women's Club and park commissioners—know how much more the need calls for. Our schoolyards are small and often are in needlessly poor condition. Pools of water in some, projecting stones in others, render them unfit; while the schoolhouse is rare that has any provision for play in times of storm. Too often the scanty time assigned by the school committee for recess is taken away. In our report of 1907 the great sanitary and educational values of the recess were presented. We do not ask for play during school hours for the sake of play, but because the relaxation of the strain of attention which comes in play is a vital need.

What can be done is well shown by a statement of what is done at Spencer, Mass., under Supt. C. F. Adams. For 1,000 children distributed in 13 buildings provision is made for outdoor play as follows: 6 skating pools, 9 sand gardens, 8 hori-

zontal bars, 12 pairs stilts, 9 vaulting poles, 20 teeters, 28 swings, a basket ball set, 3 sets tether ball, and more than a score of other sets of apparatus, every one of which invites children to free play, and is simple, inexpensive and durable. For indoor play of the primary children there are two play rooms, and another making, fitted with teeters, lawn swings, settees, blocks and tables, and fully equipped sand gardens. The primary teachers are encouraged to play ring games on rainy days. Instead of the too often deadening "busy work", which is given the children of the primary grades to occupy them while the teacher is busy with other sections, the Spencer plan is to have a class recite, go to the yard, and later to come in for another recitation, so that about a third of the children of this grade are in the yard constantly in fine weather. The school libraries contain books of games; and the interest of the teachers is shown in that a number try to teach one new game a week. "Teachers tell us there are fewer gangs and fewer fights, and the truant officers testify to less truancy, since the school yards have become more attractive than the street."

In conclusion the following suggestions based on the local situation are offered.

1. School-yards. Use at recess. Grade and drain. A few loads of gravel and the use of a steam roller would do much for some of our school-yards. Supply with a number of pieces of simple apparatus teeters, swings, swinging ladders, slides, —put near the edge of yard so as to leave space for ring and running games. Supervision of manner but not of play.

3. Parts of certain streets withdrawn from general traffic and kept in good condition for very young children. Benches for mothers. There are over 100 Courts, Places, and "blind" ends of streets in Worcester, many of which could be used as play spaces. Portions of some streets could be set off for roller skating and hop scotch as other portions are for coasting in winter.

4. Playgrounds such as Crompton and Greenwood in every quarter of the city, for children of 9 to 14 years inclusive. Should be not more than one mile apart. Enclosed. Children to be left free so far as conformable to good of greatest number. Ponds for skating and hills for coasting are of this lot. "Double runners" should be barred from street hills that are used by small children.

5. Athletic fields. Extension of such facilities as are now offered in ball grounds and the bath houses at the Lake.

6. Extension of the Hamilton St. track to Lake Park, and of the Webster St. track to Hadwen Park. Sweaty, dusty mothers, bearing lunch baskets and extra wraps, and accompanied by troops of children, every summer trudge along the

stretches of road that lie between the ends of the trolley lines and the entrances to these parks. Storm shelters at these entrances would be of great benefit.

7. It would be well if the schoolhouses erected henceforth were provided with rooms for play in high, well-lighted, basements.

Committee :

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## LITERATURE

*Studies in Education during the Age of the Renaissance, 1400-1600.*  
WILLIAM HARRISON WOODWARD. Cambridge University Press,  
1906, pp. 336.

Readers of Woodward's other writings, his Vittorino da Feltra and his Erasmus, will not be disappointed in these studies. A book of unusual clearness, a pleasing style and wide comprehension, it meets the need for a work in English covering the educational thought of two epoch-making centuries.

After a general survey of the Quattrocento and the beginnings of humanistic education, Vittorino's famous school at Mantua is again described, and the high ideals, combining the best of the Christian and pagan worlds, of this first modern schoolmaster are dwelt upon. The further development of the Renaissance in Italy is typified by Guarino da Verona, the real father of the brilliant University of Ferrara, and the representative of the scholarly ideal; by Battista Alberti and (1404-1472), whose education and training found their natural fruition in his emphasis on personality and individuality,—ideals which were to be fostered by home education; and by Matteo Palmieri (1406-1475), who stands primarily for training for citizenship and the realization of individual perfection in civic relations. All of these Italians reflect the social and political conditions of their time and seek by education to correct the evils and extravagances which were already apparent.

The Italian Renaissance was introduced to the northern countries by Rudolph Agricola (1444-1485). Agricola, a man of rare talents, great personal beauty and unusual versatility, and suffused with the Italian spirit, represents in himself the whole Italian Renaissance. Refusing to teach, he had still a wider influence through the scholars who followed him to Heidelberg to hear his disputation. To Erasmus (1464-1536), pre-eminently a man of letters, and of abounding faith in the value of antiquity, and like Agricola insisting on freedom even at the price of poverty, England owes the preparation of the soil for humanism. Cambridge University and St. Paul's School are living monuments to his influence. The educational writings of his later years show a good knowledge of child nature and an unusual psychological insight. But withal his education is for the higher classes and he is distinctly a representative of the aristocratic ideal.

This book marks a departure in the increased emphasis on Guillaume Budé, Mathurin Cordier, Cardinal Sadolet, and Juan Luis Vives. To Budé France owes the establishment of the Royal Press which disseminated the teachings and thus brought about the triumph of humanism. Cordier, a Huguenot schoolmaster, is to be known as one who renounced higher teaching for the sake of grounding youth in the fundamentals of learning. His published colloquia give an intimate view of the times, and the relations existing in his school. Cardinal Sadolet, made serious by the sack of Rome, wrote in 1530 his *De Liberi Recti Instituendis*, in which he seeks to harmonize the modern and Catholic world with all that was best in antique education. His treatise is a good introduction to the study of the Jesuit Ratio. Vives (1492-1540), a Spaniard, stands for a distinct advance.

He recognizes the importance of empirical psychology and writes at length on the pedagogical aspects of memory, forgetfulness and association. He lays increasing stress on bodily education and goes into details concerning school management. In the same chapter, Woodward epitomizes the treatise of another Spaniard, Juan Huarte, "The Examination of Men's Wits."

A chapter is given to Melanchthon, the "preceptor of Germany," with special mention of his influence in the reform and extension of the university system.

The Courtier, as "nothing less than the ideal personality as the Renaissance conceived it," is treated in Castiglione's tract of 1528. This serves as a model for the educational writings of England, where Thomas Elyot, Sir Humphrey Gilbert and others in their tracts developed an ideal education for the gentleman and citizen wherein his relation to the State is much the same as that of the Italian Courtier to his prince.

The book contains a complete outline of its various chapters, a chronological table of the Renaissance, and selected Latin Colloquia from the rare manual issued at Nuremberg. J. WILLIAM HARRIS.

*Geschichte der deutschen Jugend-literatur in Monographien*, von HERM. L. KÖSTER. Alfred Janssen, Hamburg, 1906. pp. 251

The author gives a history of the literature especially fitted for children and youth from the earliest forms of the picture book to the legend and folk-lore books.

Each chapter treats with considerable detail the history and development of the section of literature to which it is devoted, gives some space to criticism, and adds a chronological table of the best examples. There is also appended a bibliography of the sources of information. Picture books, folk songs, children's rhymes, the poets of children's songs, tales and fairy stories, folk legends and folk-lore books form the content of the various chapters. Both form and content of the book are attractive and it would be a boon to parents and teachers if some one would render a similar service for the youthful English reading public. The critical bibliographies are an especially valuable feature.

THEODORE L. SMITH.

*The Education of Our Girls*, by THOMAS EDWARD SHIELDS. Benziger Bros., New York, 1907. pp. 299.

This is a sane and very timely presentation of the subject by an eminent Catholic with the approval of Cardinal Gibbons. It discusses psychical sex traits, grading, co-education and marriage, symmetry in the cultural development of the sexes, man and woman allies, not competitors, the social *versus* family claim, the vocation of women, domestic science, woman's college of the future and the home-maker of the future. It purports to be a discussion rather in the form of a Platonic dialogue between a professor of pedagogy and sociology of the University of America, a writer of economics, a female principal of a western normal school, a woman graduate of Michigan, a wealthy business man with limited education and Mrs. O'Brien, the mother of five children. They meet night after night and discuss the question from many points of view. While this method enables all standpoints to be represented, the dominant one is that the higher education of woman must not interfere with her domestic functions, and that it is now in grave danger of doing so.

*Co-education*, a paper read before the Pen and Plate Club of Asheville, N. C., April, 1907. By COL. ROBERT BINGHAM. pp. 20.

In this address, the speaker takes radical grounds. The woman

who misses husband, home and children fails to wear a crown. It is calamitous that unmarried men or women are ever envied because of their freedom. The "father's parental connection with his offspring is only momentary," while the mother's relation with her child is life-long. The maternal instinct is the heart and soul of womanhood. The Hebrew, Greek, Roman, Italian, and Chinese mothers and, to some extent, the German, have been from the modern point of view under-educated, and yet they have performed their chief function well. Their vitality is greater than that of American women who have more education than any other women in the world. From twenty-five to forty-five "the woman's life is absorbed in maternity," and she does not have a second period of growth like man. The girl ought to have one-fourth less strain for she has forty per cent. of physical disadvantage in mere education. She is now rebelling against the Almighty and saying, "Why hast thou made me thus?" Because she cannot stand the cruel strain she is now often under, she blames herself or nature. Dr. Woodruff Johnston showed that "In Cleveland, Ohio, seventy-five per cent of the girls who left the high schools during the year, and thirty-three per cent. of the boys did so on account of ill-health. And, an association of college women has demonstrated that of 705 female graduates of twelve of America's foremost female and co-educational colleges 19.67 per cent. lost their health during their college days, and 59 per cent. of them suffered some mental or physical disorder afterwards. Furthermore, of these 705 girl graduates only 26 per cent. married, and of these 37 per cent. were childless at the end of six years of married life. Those who became mothers brought on an average less than two children into the world, and of these 12 per cent. died at or immediately after birth."

Catholics are praised because "co-education of adolescents is unknown among them." Why, it is asked, do Smith, Bryn Mawr, Wellesley, and Vassar exclude men pupils, and are they reactionary on this ground? Why do college boys at their dances prefer to bring in other girls rather than dance with co-eds? A learned man is more esteemed and a learned woman is sometimes less esteemed for learning.

*Illiteracy in New York.* Rep. from the Second Annual Report of the New York State Education Department, Albany, 1906. pp. 527-558.

Eighty per cent. of the New York illiterates are foreign-born, yet there are more illiterate children of native-born than of foreign-born parents. Most of the illiterates are in large cities. In all classes there is more illiteracy above twenty-five years of age than below. Illiteracy, in New York, of children from ten to fourteen is now 71,000. Although this percentage is decreasing, the State went down in comparison to other States in the preceding decade from the eighth to the fourteenth place. In farming regions, ability to read declines with farming. We have come to let our overestimate of the importance of high school and college get into the way of our proper estimate of the need of elementary training. In the census of 1900, the largest per cent. of illiteracy was in Louisiana, 45%; North Carolina, 44%; Alabama, 43%; Mississippi, 42%; Georgia, 41%. Iowa stood number one on this scale with only 2%, and Nebraska was second, Kansas third, Washington fourth, Utah fifth, Oregon sixth, Ohio seventh, Wyoming eighth, Minnesota ninth, Illinois tenth, while Massachusetts only ranked twenty-second in this list and New York nineteenth.

*The People's Disease: How to Prevent It,* by WILLIAM R. WOODBURY. Rep. from the Boston Medical and Surgical Journal, Vol. 158, No. 13, March 26, 1908, pp. 405-410.

The people's disease is dental caries. On a basis of the examina-

tion of 2,200 children in New York, it appeared that 72% were badly in need of dental treatment, yet there is only one school dental clinic. At present, thirty-three of the chief cities of Germany, owing largely to the important work of Jessen, of Strassburg, have such clinics, and aural hygiene is a department which has considerable stress in the training of teachers. Defective teeth are known to be connected with tuberculosis, and the throat and glands, and Osler says "There is not any one single thing more important to the public in the whole range of hygiene than the hygiene of the mouth. If I were asked whether more physical deterioration was produced by alcohol or by defective teeth, I should unhesitatingly say defective teeth." At adolescence, eating habits need attention as the proportion of solid food is increased as is the propensity for sweets and mild acids. The tendency to bolt food, unchewed, is often due to poor teeth, so is stuffing and even defects of voice, and in chronic gastritis the teeth are an important cause. Tooth rot bars policemen or firemen. The crushing power of natural sound teeth is two hundred and seventy-five pounds, that of the best made artificial teeth but twenty-five pounds.

*The Physical Defects of School Children*, by JOHN J. CRONIN. Rep. from the New York Institute of Stomatology and Allied Societies for December, 1907, pp. 9.

*The Health of New York School Children from the Point of View of the Department of Health*, by JOHN J. CRONIN. Rep. from Archives of Pediatrics, October, 1906, pp. 10.

Cronin tells us that New York City with a budget of \$130,000,000 employs through its department of health, one hundred physicians at \$100 a month, and fifty nurses at \$75 a month in examining 800,000 children. There should be at least one nurse and one physician for each two thousand children. Medical inspection began in New York in 1897, to prevent contagious diseases. Teachers were, at first, rather unwilling and unable to detect these diseases. In 1901 a special commission of oculists reported that seventeen per cent. of the children reported had trachoma. Children with any contagious disease were excluded and this reduced one-half of the population of some of the schools. Conditions have now greatly improved. We are told on a basis of 650,000 pupils, the per capita tax on each is twenty cents a day. Twenty-four thousand children excluded one day puts a useless expense of \$4,800 upon the city. Probably about 17,000 have trachoma. Since 1890 there have been in New York only about 6,000 cases of small pox, two cases only among school children. This reduction is due to vaccination. Great progress is reported in the fact that now about one-half the parents follow the advice of the department of health. With thirty per cent. of the children behind the class proper for their age, it is estimated that six per cent. lose one year in every eight. Despite these conditions, however, the condition of the health of children is on the whole rather favorable, in spite of the fact of the large aggregate numbers found ailing. One school has a special class for backward children and a great majority of these are more or less defective. The writer advises that underfed children should rest during the recreation time and take nourishment. Certain standard lectures on hygiene should be given in every school.

*The Influence of Occupation in the Prevention of Mental Reduction*, by H. A. TOMLINSON, M.D., Superintendent St. Peter's State Hospital. pp. 16.

The writer, although opposed to exploiting the labor of inmates of insane asylums for commercial purposes, is a very ardent advocate of labor which is the best form of pastime and of training. He believes

that nothing so tends to prevent the rapid deterioration of mind that confinement itself as well as insanity tends to cause. Work gives control, stimulates weakened capacities, and improves the digestion, appetite, and health.

*Mind in the Making, a Study in Mental Development*, by EDGAR JAMES SWIFT. Chas. Scribner's Sons, New York, 1908. pp. 329.

This book elaborates what is called the most significant tendency in the education of literature to-day, viz., the substitution of the individual for the course of study as the basis of constructive pedagogy. The growth of American cities has centred attention upon the machinery of school systems, while increase in college attendance has submerged the individual until it has been found that he has assets that have been overlooked. The book is a plea for the personal element in education and for an expansion of experimental chapters. Although a number of the ten chapters which constitute the book have been printed elsewhere, it makes as arranged here a commendable unity. The chapter heads are: standards of human power, criminal tendencies of boys, their cause and function, the school and the individual reflex neuroses and their relation to development, some nervous disturbances of development, the psychology of learning, the racial brain and education, experimental pedagogy, school masses and education, man's educational reconstruction of nature. The volume as a whole is full of interesting and, what is far better, to a great extent new matter which the author has spent years in accumulating and correlating. He insists that a large part of the child's soul is not educated in school the methods of which are not broad enough to be commensurate with the magnitude of human nature. He has very bitter language for the way in which the child now is sacrificed to the system until individual traits are in danger of being stamped out. Perhaps still more bitter are his denunciations of the way in which the individuality and the freedom of the teacher is now limited at every point both by system and by the superintendent. He shows from the study of the lives of scores of great men how many of the leaders of the human race have been accounted dull almost to the point of worthlessness by the school and thinks this of itself is a sufficient indictment against existing methods. He points out how the brain continues to grow on to old age and shows the bearing of its plasticity upon his problem. This note is by no means an adequate indication of the richness and value of this book which should be in the hands of every leader of education to-day.

*An Introduction to Child Study*, by W. B. DRUMMOND. Edward Arnold, London, 1907. pp. 348.

This author has been one of the leaders in the child study movement in Great Britain and has here set down with an Englishman's good practical sense a general account, not so much of the movement but of the main results so far achieved, together with references to the more important literature. Altogether he has written a work that is likely to have wide currency, not only as a general introduction to the subject but as a text-book. The chief topics dealt with are the relation between biology and child study, the methods of the latter, weights, measure and growth, the senses and nervous system, the health of the child, fatigue, instincts in children, habit, interest, forms of expression in speech and drawing, moral and religious traits, peculiar and exceptional children. The book is certainly one of the most readable in the field.

*Character Forming in School*, by F. H. ELLIS. Longmans, Green & Co., New York, 1907. pp. 235.

All agree that character building is the chief function of the teacher and this book is compiled to show a method that has been applied in a large elementary school to children from three to fourteen. The lessons are printed as they were prepared and given and the weekly schemes copied from the teacher's note book and the compositions are those done by the children. In the infant schools, the topics to each of which a month was devoted, are the following: love, obedience, unselfishness, courage, self control, harmony, joy, with stories, games, music, nature talk and reference books appended. In the girls' school the chief topics are resolution, self-reverence, knowledge and control, harmony, joy, ideals, loyalty, altruism, self-reliance, faithfulness, obedience, good will, perseverance, truthfulness and co-operation. Each of these topics has its literature, its Bible texts, its poetry and numerous characters from literature or history that are supposed to illustrate it. The complete scheme of virtues comprises thirteen in all. There is also a brief talk, sermonette or story and nature's co-operation is invoked. The method differs in some essential respects from the so-called Brownlee method.

*Departmental Teaching in Elementary Schools*, by VAN EVRIE KILPATRICK. Macmillan Co., New York, 1908. pp. 130.

The author who is a public school teacher in New York has had a wide experience and is convinced that a proper form of departmental teaching will bring a wealth of gain to any elementary school and she here attempts to set forth the most effective plan. She realizes that some of her principles are so fundamental that they may seem commonplace and also that many forms of departmental teaching have failed. Her chapters are as follows: in the first the advantage of expert teaching, in improved discipline, physical condition, equipment, enrichment of the high school, attractiveness to teachers, distribution of sex control, talent developed, individuality increased, etc., are set forth. In the next, objections are considered. These are overwork, difficulty of correlation, narrow-mindedness of teachers, increased complexity of school organization, the diminution of teachers' personal influence. Under the principles of adaptation, the functions of the teacher are considered in relation to the pupil, study in the school and the threefold nature of the child, intellectual, moral and physical. Under the plan of adaptation the author considers control of children, presentation of topics, faculty organization, the selection of classes, studies, programme and simplification of management. In discussing details the following topics are discussed: the length of period, discipline, attendance, correlation, absent teachers, supply, fire-drill, detention signals. Then follow mistakes. Those here enumerated are the danger lest all studies be departmentalized, the moving of children from room to room, the promotion not proportionate, too much presentation, too many teachers in a division. The method may be limited by the size of the school, the class or the part of the course to be departmentalized. Other plans are the study-hall method, the peripatetic method and departmental unity for the year. The final chapter describes optional introduction, preparation and examination of teachers, comparative results and laboratory work. There are eleven illustrations.

*The Kindergarten in American Education*, by NINA C. VANDER-WALKER. The Macmillan Company, New York, 1908. pp. 274.

The author is in every way very competent for her task. America has become the most representative field for the kindergarten in the

world where it affects far more children and involves far more expense than in the land of its origin. The writer here points out its relations to educational progress, describes the period of its introduction, its early literature, its extension, relations to woman's clubs, church, Sunday-school and missions, temperance, settlement and welfare work, its organization and the presentation of its results in exhibitions, has a good chapter on progress in kindergarten literature and its advance in the public school system, its influence on elementary education, and, finally, a good chapter on new tendencies. Altogether it seems a fair treatment of the new and the old points of view and in this respect marks a distinct advance since most kindergarten literature has so far been hopelessly devoted to the metaphysical side.

*Our Colonial Curriculum 1607-1776*, by COLVER MERIWETHER. Capital Publishing Co., Washington, 1907. pp. 301.

This is an interesting and valuable study. The first chapter on elementary courses tells of the original New England primer, the education of girls, the horn book, how children of our forefathers read, wrote and ciphered and describes their books. In treating the college course, he describes one of its prime purposes as that of saving souls, tells how the various topics in the earliest schedule of Harvard were taught and how it set fashions for the topics and methods of other American institutions. The treatment of ancient languages is particularly full and goes back to Sturm and Comenius, characterizes the methods of Lilly and Cheever, describes the old dictionaries, texts, ponies, and then outlines the development of the study of Greek and Hebrew. Another chapter is devoted to the very prominent place held by theology and philosophy, tells us how Chaldean and Syriac were taught, how love ruled and how hard it was for ethics to be admitted and describes the rise of science. Geography, modern languages, mathematics, science are other chapters, and the last, and, perhaps, the most interesting of all, is a characterization of the old disputations.

*The Demonstration Schools Record*: being contributions to the study of education by the Department of Education in the University of Manchester. No. 1. Edited by J. J. Findlay. University Press, Manchester, 1908. pp. 126 (Educational Series, No. 2).

It is intended to issue at convenient intervals successive numbers of a publication such as is here presented in order to acquaint subscribers and others with the work of the demonstration schools and the investigations that centre about them. In this number, the chief concern is to show how a demonstration school can supply the needs of a University department of education. The first article is on the use of demonstration schools in the study of children and some social aspects of child study. Then follow the study of curricula and method, the syllabus of science teaching, the first year's course in French, problems in the corporation, life of school, the control and support of demonstration schools, language work in history teaching, with a supplementary article on Mrs. Fidden and the trustees and by-laws of the school that bears her name.

*The Management of a City School*, by ARTHUR C. PERRY. Macmillan & Co., New York, 1908. pp. 350.

We are told that there has been no work hitherto devoted to the duties and problems of the position of school principal. This author, therefore, comes forward with chapters on the relations of the principal to the State, the public, the authorities, teachers, pulpit, material equipment, physical welfare of the pupils, their scholastic progress,

their moral development, and ending with a final chapter on the qualifications of the principal, his adjustment to his position, his personal growth and the position itself.

*Educational and Legislative Problems*, by JOHN P. SUTHERLAND.  
Rep. from North American Journal of Homoeopathy. pp. 16.

This is a very interesting and able argument in favor of a lower degree in medicine, the licentiate, besides that of the doctor of medicine. The public needs it as there are far too few regular practitioners. This need is felt chiefly in the country, and there are many rural districts that are to-day almost without physicians. These positions could be filled by licentiates who would, of course, always have the possibility before them of proceeding to a higher degree. We must not, he says, invite the fate of the general "who rode so far in advance of his army that they lost him altogether and went into battle unofficered." We must not pull up the ladder after us in order to work solely to exalt the dignity of the profession. We must aim at maximum efficiency, or the greatest good for the greatest number.

*A Plan for an Exchange of Teachers between Prussia and the United States*. 576 Fifth Avenue, New York, March, 1908. pp. 7.  
(The Carnegie Foundation for the Advancement of Teaching.)

This institution now proposes the following plan: A number of young men teachers are to be appointed either for half an academic year or a whole year to visit one or more Prussian schools in a single locality, to receive twenty-five to twenty-seven dollars and a half per month, to attend instruction in all classes, to be chaperoned by school directors who are to introduce them into the social life of the community and help them in their studies. They are to hold informal conversations with the German classes two hours a day; each candidate must have had at least one year's experience as a teacher and some facility in German. The work will be in a gymnasium or Real-school. Conversely, German teachers are coming to American high schools or colleges of good standing. These must be graduates of some German university, have taught a year, and schools wishing their presence must apply. Our teachers must not publish the special results of their inquiries except with permission of the proper authorities, but it is understood there will be no objection to serious and well-informed publication.

*Die Tätigkeit der Unterrichtskommission der Gesellschaft deutscher Naturforscher und Ärzte*, von A. GUTZMER. B. G. Teubner, Leipzig, 1908. pp. 322.

The first conference described is that of students and teachers of nature at Cassel in 1903, then that of mathematics and natural scientists in secondary schools in Breslau, 1904, then that of naturalists at Meran in 1905, then the reforms of the conference at Stuttgart, 1906, and their continuation in Dresden in 1907. These meetings dealt in great detail with special topics and the various grades, especially for *Gymnasia* and *Real* schools. The discussions were of such problems as the proper training in mathematics for each year, then as to the place and pedagogic development of chemistry, biology, geology, mineralogy, anthropology, botany, physics, etc. Incidentally, the hygiene of these topics is treated and one interesting section is devoted to sexual training in the higher grades. Another fruitful topic of discussions was the further scientific development of those preparing for the teaching of mathematics and sciences, and in this discussion, too, there was much detail.

*Proceedings of the Twenty-first Annual Convention of the Association of Colleges and Preparatory Schools of the Middle States and Maryland, 1907.* Published by the Association, 1908. pp. 140.

A prominent feature of this meeting was the criticism of present methods of graduate instruction in their effects upon secondary teachers. It is true that not many of the latter have ever done graduate work, but those who have, are likely to be too specialized. They teach pure rather than applied science and thereby miss a spring of interest on the part of the pupils that is very important, and thus have been really unfit for this work. Balliet says "not one in fifty of the men and women who take the doctor's degree in science or in mathematics has the least suspicion of the problem before him when he begins teaching in a secondary school." Perhaps this is worse in literature, which is far too philological and critical. Those intending careers as secondary teachers should, perhaps, have a special course. The lecture method does not fit the high school. University trained teachers do not illustrate enough but teach over the heads of their pupils. The text-books they write are too theoretical and abstract. Hence, some have insisted that the university has had a "deleterious and pernicious influence upon the high school and its graduates should be avoided." Another topic was modes of admission to college. There is first, the old-fashioned examination; second, the central board; third, the State examination of New York, rather to determine competency to graduate than to admit to college; and the certificate system is the fourth. President Rhees regards certificates as better tests than separate examinations. President Woodrow Wilson, of Princeton, in his address criticised the schools in the roundest terms: "The children of the past two or three decades in our schools have not been educated." The same is true in the college: "With all our teaching we train nobody, with all our instruction we educate nobody." We do not admit this publicly but we confess it when we are alone or upon our knees at night. "We are on the eve of a period of reconstruction." He wishes pure science, philosophy, literature, history and politics. He would give each pupil thorough instruction in something fundamentally, say one language, Latin, with others secondary, or insist upon mathematics or English as central. "We have been caught in a ridiculous system where we are trying to teach a student everything and do not teach him anything." Each should be limited to a small body of great subjects. We must simplify. We have annexed vast territories of knowledge, as we have annexed the Philippines and Porto Rico while they remain essentially foreign territories. Thus we have "missed the meaning of education, forgotten to assemble its elements and to concentrate its methods." Another speaker pleaded for the abolition of the term "preparatory schools." The importance of secondary schools depends upon the "importance which the colleges attach to their entrance examinations and certificates." Instead of fitting for college, secondary institutions should do work that bears more directly upon present social and economic problems. Preparation does not constitute the best training.

*The Conditions and Tendencies of Technical Education in Germany,*  
by ARTHUR HENRY CHAMBERLAIN. C. W. Bardeen, Syracuse,  
N. Y., 1908. pp. 108.

Technical education is perhaps now most vital in Germany, which has been developing it longest and where it has become part and parcel of the pedagogic fabric of the nation. The author has made a careful study of this topic and after classifying the schools describes their various classes, viz., continuation, trade, secondary, technical schools

and those for building trades, foremen, textile occupations, the industrial schools of Bavaria, higher technical schools, those for industrial art or art trade schools. At the close he gives a bibliography of the more important literature, although most of his references are incomplete, as is the literature. It is on the whole, a valuable handbook.

*Educational Woodworking for Home and School*, by JOSEPH C. PARK.  
The Macmillan Company, New York, 1908. pp. 310.

Manual training is increasing in the curriculum in the public school and with it has come a demand for a text-book that can be put into the hands of the pupils so that they may be held responsible for important subject matter in connection with wood work. The book should be used under the direction of a skilled instructor. It is divided into several parts; one dealing with wood-working tools, the second with machines, the third with the study of wood, the fourth with fastening devices used in wood construction, the fifth with wood finishing, the sixth with exercises, and the seventh with turning. The book is copiously illustrated with more than 250 cuts.

*Our Children, Our Schools, and Our Industries*, by ANDREW SLOAN DRAPER. C. W. Bardeen, Syracuse, N. Y., 1908. pp. 133.

The Commissioner of Education for the State of New York here elaborates an address in which he sets forth with characteristic vigor the necessity of teaching branches that lead to craftsmanship and tells us a little something of what is done abroad and closes with a number of recommendations such as the need of up-to-date vital statistics, the requirements of attendance at seven instead of eight. Vocational schools should begin at the end of the elementary school course, should last three years, open both day and evening, and he would shorten the elementary school to seven years, assuming that if the child does not go to high school, his school work will end only with his seventeenth and not with his fourteenth year. He would put some industrial work into the elementary schools from the start, and urges every child on leaving the elementary school to either go to high school, to a trade school or to work; expects the school will keep track of him till seventeen, and would modify child labor laws and avoid all conflicts.

*Report of a Study of Probation in Yonkers, New York, made on behalf of the New York State Probation Commission in Oct. and Nov., 1907*, by ARTHUR W. TOWNE, Secretary. J. B. Lyon Co., Albany. pp. 40.

This very careful study shows that probation in Yonkers has, during the first year, benefited more than two-thirds of the probationaries, has reduced truancy commitments, and brought financial economy. The report urges more professional probation officers in addition to volunteers, and wants both men and women. Investigations before trials should be fuller, and the term of probation should not be less than six months. Probationary meetings should consist of small groups.

*School Reports and School Efficiency*, by DAVID S. SNEDDEN and WILLIAM H. ALLEN. Macmillan Co., New York, 1908. pp. 183.

This is the second of the publications of the New York Committee on the Ethical Welfare of School Children and will command wide-spread attention. The articles are as follows: the purpose of educational statistics; the beginnings of school reports in American cities; efforts of the N. E. A. to improve school reports and secure uniformity; examples of tables and other forms of presenting school facts

used in typical city reports; important questions not answered by existing reports; suggested economies and improvements in reports and a practical study of one school report, New York City. It is interesting to learn that the work of this society is entirely independent of any existing school system and that it can criticise, as it freely does, the mode of presentation, even of the city of New York in which it is situated. The work of these two investigators here is said to have distinctly modified for the better the form of presenting the annual report of the superintendent of the schools of New York City. The origin of this series dates back to 1904, when the Board of Education of New York City had to curtail its vacation, night schools, recreation centres and popular lectures for want of funds. A discussion followed in which the question arose how many would be injured by cutting off the so-called social features of the school. Various other questions have arisen meantime, such as fads and frills, free meals, flexible grading, promotions by subjects, teachers' salaries, all of which were discussed on theoretical grounds, as if New York had no experience. The conviction, however, grew that reasoning from fact to policy would improve the schools, and so a committee on physical welfare of school children was organized and three studies are ready for publication. One of these papers proves that physical defects due to home conditions are not confined to the very poor or emigrant class. The second confirms the notion that the buildings, home study and curricula are manufacturing more defects than the physician, nurse or dispensary can correct. The third study is the above presented.

*Menschen die den Pfad verloren: Erlebnisse aus meiner fünfjährigen Tätigkeit als Polizei-Assistentin in Stuttgart.* VON SCHWESTER HENRIETTE ARENDT. 2nd ed. Max Kielmann, Stuttgart, 1907. pp. 115.

The writer characterizes the different groups of women under police supervision and has a curious chapter as to the moral conception of prostitutes, and finds many of them psychically defective. The relations between the State and their vocation, the various attempts at amelioration and rescue, the care now given to unmarried mothers and their children and suggestions for penal reform make up the substance of this book by one who has had long experience in this field of work.

*Bill, H. R., 17299,* Gov't. Printing Office, Washington, D. C.

This bill is to authorize a commissioner of education to conduct special investigations, and diffuse the information thus obtained. The topics specified are industrial training, rural schools, agricultural and mechanical schools, higher education, hygiene, construction, equipment, welfare of children and efficiency, legislation, records and accounts, and the sum of \$40,000 is to be appropriated for this work.

*Vorlesungen über Deszendenz-theorien mit besonderer Berücksichtigung der botanischen Seite der Frage,* von J. P. Lotsy. Gustav Fischer, Jena, 1908. pp. 799.

Part second . . . the author here continues what was begun in his first part, beginning here with the 22nd lecture and ending with the 49th. Some of the chief topics here treated are illustrations of selection, the limits between continuous and discontinuous variability, orthogenesis, the various preconditions of Darwinism, heredity, the geography of plants and animals and biotic factors determining ancient flora and fauna. The chief objection against Darwin he finds in the problems of isolation. The later lectures are concerned with post-Darwinian thought, especially Wallace, Nägeli and DeVries.

*Among the An-ko-me-nums or Flathead Tribes of Indians of the Pacific Coast*, by THOMAS CROSBY. William Briggs, Toronto, 1907. pp. 243.

The author has spent his life among these Flathead families of Indians in Northern Oregon, Washington, and Southern British Columbia, and he tells a very interesting story of his own experiences and prints a number of interesting photographs.

*The Indian Book: an offering by the American Indians of Indian lore, musical and narrative, to form a record of the songs and legends of their race, recorded and edited by Natalie Curtis*. Harper & Bros., New York, 1907. pp. 572.

The author is an expert musician, an educated and refined lady of means who years ago developed great interest in the Indians and has spent a great deal of time among them studying more especially their music, a great body of which she has both transcribed and learned. In this volume she modestly lets the Indians speak for themselves, transcribing their language and their songs and profusely illustrating her book with photographs, copies of original drawings some of which are made for this express purpose. She deals with the Eastern Indians, those of the Plains, the Lake, Northwestern, Southwestern and Pueblo tribes. The Indians, we are told, "are the authors of this volume." Even the cover designs, title page and preface were made by them. Over a hundred songs are given with music and with the Indian words translated. Some of the stories are pathetic in their simplicity and many of the songs are very moving.

*The Development of Modern Europe, an Introduction to the Study of Current History*, by JAMES HARVEY ROBINSON and CHARLES A. BEARD. Ginn & Co., Boston, 1907. pp. 362.

At last we have a school history which subordinates the past to the present, the author of which aims to enable the reader to catch up with his own times, to read intelligently the foreign news in the morning paper. It is not creditable that we know so much more about Charlemagne than about Bismarck, or that our current histories fail to connect the past with the present. Such, at least, is the ring of the preface. But in point of fact, we have here just an ordinary good text-book in history, the latter part of the second volume of which does make useful and interesting connections with the present, with full page portraits of Darwin, Karl Marx and so on with many contemporary allusions, especially with regard to Eastern questions. All this is to be most heartily commended, but the book by no means fulfills the ideals of the present reviewer in its modernity, for he believes that there is a sense in which for pedagogic purposes history should be written backwards and that men should first of all be taught to live in the present with all its palpitating interests and refer to the past only so far as it is necessary to understand the present. This formula this book does not conform to, although it certainly has its place and marks a step in the right direction.

*The Peoples and Politics of the Far East*, by HENRY NORMAN. T. Fischer Unwin, London, 1907. pp. 608.

Henry Norman, who was formerly well known in this country, here prints another book, the result of four years' travel in the East. He has described and discussed no place he did not visit and in all of them he remained long enough to learn the views of local authorities and to acquire some of their confidence. The East is the wonderland of the world and also the seed-bed of a multitude of new political issues and it is from this point of view that the author has chiefly

written. The countries described are The British Empire, France, Russia, Spain and Portugal in the Far East and then China, Korea, Japan, Siam, Malaya. The book is well provided with maps and photographs. It need hardly be said to those who have studied Mr. Norman's earlier works that the style is very attractive.

*Die gelbe Gefahr im Licht der Geschichte*, von FRITZ FREIHERR VON DER GOLTZ. Friedrich Engelmann, Leipzig, 1907. pp. 120.

In this timely book the author traces the various irruptions of Tartars and Huns into the West since the time of Genghis Khan. Since his day there seem to have been at least four, and the author attempts by a number of maps to indicate the approximate origin of these barbaric hordes as well as their course in Europe. Between the first and last of these invasions some 200 years elapsed. Everywhere they destroyed and did not build up. There seemed to be neither development nor decline. This makes the recent progress of Japan all the more remarkable in the author's eyes.

*Government by the People—the Laws and Customs Regulating the Election System and the Formation and Control of Political Parties in the United States*, by ROBERT H. FULLER. Macmillan Co., New York, 1908. pp. 261.

This is an attempt to describe a government by the people in the United States so far as each voter is entitled to participate in it personally; also how political parties are constituted, the elections conducted and the devices to hinder or distort the record of the mandates of sovereign power. Argument is eschewed and theories of reform are merely stated. A brief history of elections and election laws has been drawn up. On this plan there is first a characterization of government by elections, then the methods for qualifying and identifying voters, primary elections, nomination of candidates, voting on election day, in direct elections, bribery and intimidation, supplemental safeguards against fraud, experiment and reform parties and their organizations, with appendices on State regulations of the voting privilege and the party platforms of 1904.

*The Tusculan System*, by ARCADIUS AVELLANUS. Philadelphia. pp. 15.

As long ago as 1893 the writer began in his academy at Philadelphia a serial primer for use in learning colloquial Latin. This movement spread to many parts of the world and we now have the system set forth in an effective text-book. The old method does not teach language so much as the philosophy of language, that is, grammar. It is about language rather than language itself. By this method, every one must speak as much Latin as his lesson demands. Books are removed from sight and the student falls back upon the old tracks that connect the ear and the vocal organs.

*Latin Word-list*, by G. H. BROWNE. Ginn & Company, Boston, 1907. pp. 84.

The student here finds the vocabulary of Caesar's complete works and of all Cicero's orations grouped according to the frequency of occurrence and so arranged that the English meanings which are on separate pages are not visible at the same time, but can be brought into sight and on line.

*Die Milchstrasse*, von MAX WOLF. Johann Ambrosius Barth, Leipzig, 1908. pp. 48.

This delightfully illustrated pamphlet, based on a popular lecture, gives us a brief history of the recent photographic studies of the

milky way and leads on to the conclusion that we must either believe from the configurations that a great body of dark matter has penetrated from beneath or above and veiled gradually all the more distant stars so that the milky way is only a visible remainder of a once far greater but now vanished glory, when the heavens perhaps were themselves all ablaze, or else the gaps and chasms in the milky way are real furrows or obscurities in the stars themselves, the result of either some splitting or some obscuring process of which we know nothing. There is, however, a great new hope that by persistent photographic study and comparison, especially of the anterior layers of the milky way, something may be learned of tendencies or motions which will shed light upon the above and perhaps other questions. The mist seems almost always on the edge of the gaps as if there were a progressive process which was advancing. This, too, favors the view that the milky way is a residue.

*Select Methods in Food Analysis*, by HENRY LEFFMAN and WILLIAM BRAM. 2nd rev. and enlarged ed. P. Blakiston & Son, Philadelphia, 1906. pp. 396.

It is a source of satisfaction that the first edition of this work was so speedily exhausted and that another much enlarged one has now appeared; also that American work is rapidly becoming the leader in food analysis, owing to the excellent equipment of the laboratories at Washington. The analytic methods are either physical or chemical and the applied analysis and special methods are described for a long list of foods . . . starch, flour, meal, bread, candies, sugar, fats, oils, cheese, tea, coffee, condiments and spices, alcoholic beverages and fresh fruits.

*The Prevention of Venereal Disease through Education*, by PHILIP ZENNER. Reprinted from the Lancet-Clinic, Dec. 14, 1907, pp. 8.

*Zoölogy*. A Lecture delivered at Columbia University in the Series on Science, Philosophy and Art, Dec. 11, 1907. By HENRY EDWARD CRAMPTON. Columbia University Press, New York, 1908. pp. 36.

*Studies in Victor Hugo's Dramatic Characters*, by JAMES D. BRUNER. With an introduction by Richard Green Moulton. Ginn & Co., Boston, 1908. pp. 171.

*Evolution, Social and Organic*, by ARTHUR M. LEWIS. Charles H. Kerr & Company, Chicago, 1908. pp. 186.

The author begins with Thales and passes rapidly to Lamarck and then gives separate chapters upon Darwin, DeVries, Weismann, Haeckel and Spencer.

#### NOTES

#### THE INTERNATIONAL CONGRESS ON TUBERCULOSIS

The next meeting of this Congress, which convenes in Washington, D. C., September, 1908, bids fair to be noteworthy. A large number of distinguished specialists from different countries are expected to be present. The proceedings of the Congress in four volumes will be free to all members. A large number of prizes will be awarded by Congress to special meritorious exhibits. The following group of awards more especially concerns Education.

#### PRIZES FOR EDUCATIONAL LEAFLETS

A prize of \$100 is offered for the best educational leaflet submitted in each of the seven classes defined below. In addition to the prize

of \$100, a gold medal and two silver medals will be awarded in each class. Each prize and medal will be accompanied by a diploma or certificate of award.

Competitors must be entered under assumed names.

- A. For adults generally (not to exceed 1,000 words).
- B. For teachers (not to exceed 2,000 words).
- C. For mothers (not to exceed 1,000 words).
- D. For in-door workers (not to exceed 1,000 words).
- E. For dairy farmers (not to exceed 1,000 words).
- F. For school children in grammar school grades (not to exceed 500 words).

In classes A, B, C, D, E and F, brevity of statement without sacrifice of clearness will be of weight in awarding. All leaflets entered must be printed in the form they are designed to take. Each exhibit must consist of one copy of the Leaflet mounted for exhibition and not less than ten additional copies (unmounted) for perusal by the Judges.

G. Pictorial booklet for school children in primary grades and for the nursery.

Class G is designed to produce an artistic picture book for children, extolling the value of fresh air, sunlight, cleanliness, etc., and showing contrasting conditions. "Slovenly Peter" has been suggested as a possible type. Entry may be made in the form of original designs without printing.

Each competitor in the contest for Prizes for Educational Leaflets shall mark his assumed name plainly on his entries. His real name shall be placed in a sealed envelope, which shall then be enclosed in a second envelope addressed to the Chairman of the Committee on Exhibition.

W. H. B.

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A letter from Mr. Emmanuel Anastassoff, accompanied by a number of a Bulgarian Pedagogical Magazine, now in its fifth year, contains information of the growing interest in child study in Bulgaria, where the movement started about six years ago. The contents of the number of the "Pedagogical Library" just received, which have been translated into Bulgarian by Mr. Anastassoff, are "Child Study and its Relation to Education," by G. Stanley Hall; "Scope and Object of Child Study," by Prof. Muirhead; "Child Study and the Teachers," by Miss Mary Louch; and "Natural Method as the Archetype of all Methods," by E. Cook. A second number is devoted to a translation of "The Contents of Children's Minds on Entering School," by G. Stanley Hall, translated into Bulgarian by Em. Anastassoff. Mr. Anastassoff also announces the foundation of a new child study periodical to be printed in this country in the Bulgarian language.

T. L. S.

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A distinguished Belgian lady, Madame Pecher, has devised a new method of utilizing dolls for educational purposes. She has many of them made representing personages in European history arranged in the order of time from the earliest dates. A child's interest in history is at first very largely personal, and these dolls being designed and dressed according to the latest results of the history of costumes and given traits and postures corresponding with their chief deeds, are said to work with the best results in the schools.

G. S. H.

THE  
PEDAGOGICAL SEMINARY

Founded and Edited by G. STANLEY HALL

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VOL. XV

SEPTEMBER, 1908

No. 3

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THE DRAMATIC INSTINCT IN EDUCATION  
(A PRELIMINARY STUDY.)

By ELNORA WHITMAN CURTIS

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The psychological elements from which drama has developed have their roots far back among primitive peoples, for drama is one of the oldest, if not the oldest of the imitative arts, and has played a greater part than any other, perhaps, in the development of races. It is well to remember this in any consideration of the theatre as an educational force to-day, and to emphasize the fact of the universality of the dramatic instinct. From earliest times man has felt the need to give vent to pent up emotions; to express joy of living, to relieve the over-weighted exuberance of spirit, to create, to imitate. Savage peoples have satisfied this desire by their songs and dance-pantomimes, Orientals by their story telling, ancient Hebrews by dramatic dances, while in the song and dance of the ancient Greeks are found the elements out of which drama, essentially as we have it now, took form.

Dramatic instinct, too, has manifested itself in the imitative games and play of primitive man, and to-day many of the games of modern children carry us back to the childhood of the race. As man has become civilized, the primal emotions have come more and more under restraint and regulation. They have been suppressed, subordinated, but could not be stifled, and teachers are coming to believe more and more that they should be taken into account, directed and utilized educationally. X

That the restraints of social life grow irksome at times, that the need is felt of throwing off the "burden of civilization" is evidenced not only by man's creative efforts, but by the different ways in which he seeks excitement and emotional experi-

ence; for example, in the satisfaction of curiosity frequently morbid, in the witnessing of accidents, executions, attending funerals, taking part in revivals etc., and particularly, perhaps, by theatre going. Here we see the response to a need and desire felt everywhere and in all ages—the desire to feel what others are feeling, "to get experience by proxy, to get the enjoyment of borrowed pain, to put into practise the Aristotelian principle of *Katharsis*." If this is true of man, it is particularly true of the child or youth, alive with surplus energy and a craving for excitement and for what is novel.

It has not been customary until recently to study seriously the emotional needs of children in relation to educational problems. Little attention was paid to the psychology of feeling before Rousseau wrote his *Emile*.

The introduction of kindergarten into the schools marked an epoch in the direction of giving the child more opportunity for self-expression, and recent pedagogical developments have shown a disposition to consider the claims of the emotional nature as well as those of body and intellect. The tendency of modern opinion on this subject is expressed by two of our educational authorities as follows: President Hall tells us that the sentiments constitute three-fourths of life; that teachers should be made to feel themselves guardians of emotional sentiment; that as the education of the past has been of the head and the education of the twentieth century will be of the heart.

President Eliot says: "The child is still governed by sentiments and not by observation; acquisition and reasoning and material greatness and righteousness depend more on the cultivation of right sentiments in children than on anything else."

*Statistics of frequency of theatre attendance among children.* That the craving on the part of the child for expression is strong, that he longs to see a show and to take part in one, to imitate either unconsciously as spectator or consciously as actor or creator, is not theory only. Millions of dollars are expended annually on theatres which are daily visited by vast crowds, among which are children who attend performances not adapted to their needs or powers of comprehension. Teachers, settlement workers and sociologists have had some idea of the extent to which this need of the child, especially the child of the poorer classes, is seeking satisfaction by theatre going. The general public, however, has until recently had its attention but little directed to the matter. In fact the excessive indulgence of the theatre going habit among children is of comparatively recent date.

While a few years ago a ticket for a theatrical entertainment cost \$.25, or in many cases \$.50, admitting its bearer to the top gallery and more or less questionable company, or to

standing room only, the same amount now expended, and often a mere fractional part of it, entitles its bearer to the best seat of the theatre. The vaudeville show, at first of exceedingly questionable character in this country, worked its way up to comparative respectability, and from the start was more reasonable in price than even the cheapest melodrama had been. Moving pictures, at first merely a part of vaudeville, have come to be entertainments by themselves, having passed through a similar evolution, replacing Chinese opium den scenes and others of similar character by those of educational value, such as the Yellowstone Park pictures shown in Boston recently. As this form of entertainment is now the cheapest and, save perhaps for some hygienic reasons, less objectionable than many offered by theatre managers to the public, it is reaping the harvest that might naturally be expected to result.

There has been an increase in the number of stock companies now established in different cities, small as well as large, due possibly to the competition of vaudeville houses and nickelodeons with legitimate drama and melodrama, for the expenses of the road being eliminated, plays can now be produced in the smaller places at lower rates than were possible a few years ago. Thus the theatre has been brought within reach of the poor man's pocketbook and no longer ranks as a luxury, strictly, for his family.

Another reason for the increase in theatre going may be due to the fact that our population is made up to a greater extent than formerly of people in the habit of indulging pleasure-loving propensities. With less than half of the people in New England, for example, descendants of Puritan forebears, such a change of feeling towards pastimes once proscribed here is hardly to be wondered at.

The theatre, then, has ceased to be an event in the life of the child. If not a weekly indulgence, and in cases it is such, if it claims fewer hours of the child's life than does the school, it is nevertheless true that it is exerting an influence which, though subtle, is hardly less powerful as an educator. Certain events and recent investigations have brought out rather startling disclosures in the matter of attendance of city children at theatres. For example, at the time of the enforcement of the law prohibiting children under sixteen unaccompanied by parents from patronizing theatres, eighty out of eight hundred and sixty theatres which had moving pictures were closed in one week in New York. It has been stated that these shows are frequented in that city by from three hundred thousand to four hundred thousand people and from seventy-five to one hundred thousand children daily.

As the result of a lecture on "The Child and the Theatre,"

given by Prof. George P. Baker, of Harvard, before the Public Education Association of Worcester, a committee headed by Dr. Samuel P. Capen, of Clark, started an investigation last year on the theatre going habits of Worcester school children.

A set of questions was given to children of the graded schools, which resulted in some rather surprising statistics. Reports were received from 2,461 girls and 2,459 boys. 26% of the girls and 19% of the boys said they did not go to the theatre; 46% of the girls and 57% of the boys were found to go once a month or oftener; while 20% of the boys and 30% of the girls went once a week. The girls were found to go less as they grew older and the boys, more. The majority of the children claimed to have spent \$.40 a month on theatre tickets; some said \$1.00 and a few as much as \$8.00. Vaudeville was the choice of 62% of the girls and 65% of the boys, 45 girls and 67 boys going nowhere else.

Reports on the kind of plays preferred showed that many girls liked serious plays, the taste for comedy increasing as they grew older, and that the younger boys liked comedy, older ones preferred vaudeville; 34% of the girls and 32% of the boys liked drama. Of the younger pupils, five boys liked plays in which there were running, shooting and murders, and three girls liked murders.

Taste for moving pictures was found to decrease as children grow older.

The Civic Department of the Worcester Woman's Club also made a study of "The Child and the Theatre" this past year. Members of the department visited play-houses in order to get an idea of hygienic conditions, the class of plays presented, etc.

✓ Dr. Capen addressed the Department at one of its meetings and gave his statistics on the theatre going habits of the child; and carrying out the work of Dr. Capen Miss Helen Ball asked teachers in two public schools on the east side of the city to have pupils write essays on what they had seen, liked, etc., at the theatre. About 300 replies from children were received, 190 from those of 4th to 8th grades, and 97 from 9th grade pupils. 4 children had never been to the theatre; 2 had been to moving pictures only; 82 liked moving pictures best; 12 animal shows, and 17 vaudeville; 48 liked drama, a number of plays of the poorer type of melodrama being mentioned; 12 liked comedy and 5 liked tragedy.

In the matter of taste, Miss Ball found little difference between boys and girls. A few of both objected to shooting and killing, but the answers of others plainly indicated a relish for morbid excitement. The plays liked best by these children were, "Black Beauty," "Uncle Tom's Cabin" (which 17 had seen) "Billy the Kid," and "The Drummer Boy."

Miss Ball found that the children whose papers showed most imagination were those of foreign-born parents. One of these papers (that of a 7th grade girl) interesting from a number of points of view, is given here verbatim as illustrative of the possible effects of indiscriminate theatre going on a child's moral attitude.

"THE NAPOLITAN'S REVENGE."

(Seen in moving pictures.)

"At a table in a yard sat a man and woman talking. On a doorstep sat a small boy playing. The costume of the woman is a shirt-waist and a square piece of stiff cloth on her head from which fell a long thick veil. The man had tights and a wide girdle. Soon he went into the house and brought out a decanter and glasses. As he went in a man came and handed her a letter, which, as her husband came out she thrust into her bosom, but it slid out and when they finished drinking she went into the house and the husband went off. The boy found the letter which dropped and his father took it away from him and read it. The letter read (it) as follows: 'Dear Solo: meet me on the rocks to-night. Lovingly, Randolph.'

Scene 2. A field along the seashore with a man standing near the water. The man's costume was a overalls turned up to the hips.

Soon the woman whom we had seen in the yard came and he went to help her. They walked all around and finally came to a round, high and large, such as we see in deserts. Here he attempts to kiss her face but she won't let him, so they go on.

But! We have not noticed the third man who has followed them all the way and heard all they've said; who is he, and what has he in his hand? In his hand he has a dagger and he is her husband. But they are out of sight, where have they gone? here they are just entering the home owned by him whom she has run away with. She brushes her dress as he on his knees makes love to her. Who is following still? Her husband. He goes in after the culprits. He forces a dagger deep into the man's heart and he lay on the floor writhing in pain and the husband takes a long rope and binds his wife to the chair so she can hardly breathe. He then takes clothes, straw, the lace draperies and soon the beautiful mansion was in flames. The man goes home, his son runs away. What joy has he now?"

In order to obtain further information concerning the theatre-going habits of children, the character of plays patronized and preferred, the frequency of attendance, some idea of cost, etc., but particularly the moral and intellectual effect upon children—those taking part in plays as well as those witnessing

them—a questionnaire was put through some of the public schools of Providence, Rhode Island. Schools of that city were chosen for a number of reasons and children of grammar grades examined on these points.

A part of the questions were addressed to teachers and related to the number of absences noticed, due to attending theatres, the effect of theatre-going upon school work and compositions, upon character, ideals, conduct, manners, and to the practice of giving school plays. The questions to teachers brought chiefly negative results—apparently few had given thought to the subject; 17 answered and of these 13 had had no absences and had noticed no effects on pupils from theatre-going. One teacher reported one, another two cases of absence. None had had stories acted; none had given school plays. Remarks and opinions of some of the teachers who answered are here given.

Seventh grade. "I have noticed no effect of theatre-going in the school work of my pupils. In a few cases I have traced a pupil's great use of slang and general low moral tone to attendance at cheap theatres and the reading of dime novels."

Fifth grade. "The effect I have noticed is less refined language."

Seventh grade. "Among those who attend most often I find one is always tired, while the other two are among the most careless pupils. I have noticed that the boys who are inclined to read the cheap novels are those who attend the cheaper theatres."

Seventh grade. "Cannot connect poor work with theatre-going positively; in fact, I believe trashy reading has had a greater effect. Two pupils who go much have been indifferent pupils but I know they read trash. One who has been most is a perfect gentleman and earnest in work. The street for playground has a greater effect on manners than theatres; in fact 25% have not been and many only once."

Sixth grade. "In regard to conduct, manners, etc., the pupils may be influenced, indirectly from the theatre, by imitating older ones of the family who do attend. I have never had the pupils act out stories because the time allotted for the regular school work has been fully employed in teaching the necessary branches."

The data obtained from answers of pupils, affording as they do results obtained from the examination of a comparatively small number of children of a few schools in one city only, are offered not, of course, for quantitative or statistical value, but merely for their suggestiveness. Any one familiar with the questionnaire method will realize the difficulty of obtaining satisfactory replies from children. While in many cases answers are evidently given with perfect sincerity, in others there is a lack of it, especially in questions relating to expense and number of performances attended.

Some allowance has to be made for children of foreign parentage, who either misunderstood the questions, or failed to express their meaning in answering; some also for cases of too vivid imagination as marking the prolongation of that age when strict adherence to truth has not become habitual. A

good deal of allowance, too, must be made for the inhibiting influence of the schoolroom and for the giving out of these questions much in the form of a school examination. Some of the pupils may have had an idea of hitting upon the answer desired or expected of them—but in most instances childlike naïveté prevailed.

725 children were examined. Of these 377 were girls, 348 boys,—their ages ranging from 9 to 16.

208 children (140 girls, 68 boys) had not been to the theatre from the time extending from the beginning of school, September, 1907, to the early part of the following March.

171 girls and 220 boys were found to go afternoons; 175 girls and 216 boys, evenings. The total number of performances for each is not given here, owing to the fact that some children professed to have been several hundred times—a manifest impossibility for the time mentioned, also because the totals given did not tally with number of afternoon and evening performances. 192 girls and 111 boys stated that the money for their tickets was given to them; 22 girls and 93 boys used their own spending money, and only 1 girl and 5 boys stated that they themselves had earned the money. 181 girls and 121 boys said they were in the habit of going with older people and only 2 girls and 12 boys mention going alone—this not taking account of those children who go sometimes alone, sometimes with older people and sometimes with companions of their own age. 109 girls and 38 boys mention sitting "down stairs;" 63 girls and 123 boys "up stairs;" 45 girls and 84 boys giving different places, ranging from box to gallery, but few mentioning the top gallery or second balcony. Three girls said they had been once a week—one of these sometimes twice; one girl had been 25 times, others 27, 29, 40 and about 40 respectively.

Five boys had been every week; 2, every other week; one twice a week; one every night; one "went every night." Four had been 25 times; one 26 times; two 27 times; one 28 times; one 30 times. Two said that they had been 50 times; one about 70 times; one 75 times; one about 125 times, and one 425 times. Various other large numbers, manifestly incorrect, ranging from 175 to 290, were given besides indefinite answers such as "many" and "too many to count."

Prices paid for tickets were all the way from \$.05 to \$2.75. Few gave \$.05, however, although this is the regular admission price for moving pictures. 175 girls and 189 boys had spent \$.25 or more. These returns did not show as did those of Dr. Capen's from Worcester children, a decrease in theatre attendance in girls and an increase in boys of upper grades.

134 plays were mentioned by these children, besides vaude-

ville and moving-picture shows, and while special acts and scenes were liked in the latter shows, plays seem to have made more impression and, on the whole, to have been preferred.

In the list of plays attended there is a wide range extending from classic and standard plays to the cheapest if not most pernicious types of melodrama. Mention is made of Julius Caesar, Hamlet, Faust, and of representations of the better sort of romantic drama such as "When Knighthood was in Flower;" also plays which entertain and, at the same time, impress valuable truths or lessons, old-fashioned melodrama, like "Uncle Tom's Cabin" and "The Drummer Boy," and those of a cheaper grade (if one may judge by names) such as "Lottie, the poor Sales Lady," "The Hired Girls Millions" and "Nellie, the Beautiful Cloak Model." Though the list includes a few standard dramas, by far the greater part of those mentioned must be classed as uneducational if not distinctly detrimental in influence. Uncle Tom's Cabin was the play preferred by most children, being first choice of 30 girls and 12 boys and the second choice of 6 girls and 9 boys.

Other popular plays were, "The Night before Christmas," "Tony, the Bootblack," "From Sing Sing to Liberty," "Way Down East," "David Higgins' Last Dollar," and "Convict 999." Moving pictures were mentioned by comparatively few children and in cases where plays had been also seen, were not first choice. Vandeville was first choice of 9 boys but no girls; second choice of 9 girls and 15 boys; third, of 8 girls and 6 boys,—but of these a number had not been to plays.

Answers to questions of what was liked in the different plays, brought out the fact that a large class of children were undiscriminating, owing to confused memory, lack of descriptive ability, etc. 113 girls and 122 boys failed to offer comments on what they had seen, saying they had "forgotten" or "liked all." Of those who did discriminate, by far the largest number of both girls and boys liked special scenes, next came special characters in plays, then music and dancing, then tricks and juggling (the choice of a number of boys but few girls); after these "things that were funny" followed by animals' performances; and lastly, things liked for their aesthetic value—this appealing to few of either sex.

In the special acts or scenes mentioned, the exciting and emotional led.

In studying the children's expressions regarding different scenes, various points of psychological interest are brought out, and the excerpts have been roughly classified in accordance with the most prominent characteristics, though others are often included, since the exact wording, spelling and punctuation of the comments have been preserved throughout, as the

effect of theatre-going upon language is a pedagogical question.

A taste for excitement and in some cases for the morbid is shown by the following:

M., 12, 6th Gr. "The first I liked best was the shooting of Indians."

F., 13, 7th Gr. "I like best where they shoot the men."

F., 14, 7th Gr. "(I like best the man with several wives) I like where the man kills his wife."

F., 13, 5th Gr. "I saw them shooting and some other things; I saw the best the girl got drowned."

F., 12, 8th Gr. "I liked the scene where Brutus killed Julius Caesar."

F., 13, 8th Gr. (In *Soldiers of the Cross*.) "I liked the scene of the Eruption of Mt. Vesuvius."

M., 13, 8th Gr. (Wizzard of Oz.) "I liked the hurricane in the last act."

F., 12, 7th Gr. (Cowboy and the Squaw.) "The engineer pulled the bell to clear the road and save the people in the burning train. The squaw saved the cowboy on the cow"(catcher?) "and they became friends."

M., 13, 5th Gr. "I loved best where the hero saves the girl and his child from bein(g) eating from the lion and I loved went the man dives in the water, chains over him."

M., 12, 6th Gr. "In the first (The Man Monkey.) I liked the thundering scene."

F., 12, 8th Gr. (Wizzard of Oz.) "The cyclone."

M., 13, 7th Gr. "When the Man Monkey escapes and when he fights with the villain and kills him."

M., 14, 7th Gr. (His Last Dollar.) "I liked the race." (Uncle Tom's Cabin.) "I liked when Eliza escapes." (The Merry Widow.) "In the third I didn't like nothing."

M., 13, 5th Gr. "I liked where they gamble for the girl."

M., 10, 5th Gr. "I liked where Maria (Eliza?) ran across the floating ice."

M., 12, 5th Gr. "I liked the Great Express Robbery where the train gets robbed."

M., 12, 5th Gr. (Nathan Hale.) "I seen about when hale to Briade was hang."

A taste for the mysterious showed itself in a few of the comments, as for example:

M., 13, 7th Gr. (Hamlet.) "I liked the ghost."

Interest for the melodramatic is indicated by:

M., 14, 8th Gr. "I liked where Annie went out into the storm."

M., 14, 7th Gr. "I liked where the little lord meets his grandfather in the mansion."

M., 13, 7th Gr. "I liked where Alice recovers her sight."

M., 11, 6th Gr. "I liked where the Man Monkey said: 'And if you shall kill me, the secret shall die with me.'"

A number of children showed a liking for the sad and pathetic.

F., 14, 6th Gr. "I liked where little Eva goes to Heaven."

F., 12, 8th Gr. (In Faust.) "I liked the part where the young lady dies." (girl.)

F., 13, 7th Gr. (Way Down East.) "I liked the sad part."

Remarks on special characters liked include the following:

F., 13, 7th Gr. (In Uncle Tom's Cabin.) "I liked Eva best, I liked the villain, I liked Uncle Tom."

F., 13, 5th Gr. "I loved Cinderella."

M., 13, 8th Gr. Lincoln at the White House, July 31, 1861. "I liked the character of Pres. Lincoln best in each of the plays."

M., 13, 8th Gr. "In Way Down East I liked Hi Holler."

M., 11, 5th Gr. Mr. and Mrs. Baker. "I liked Mr. Baker best because he represented a fast express and a drum."

F., 13, 6th Gr. "I have seen every play from the 'Night Before Christmas.' I like 'Cunning from Sing Sing to Liberty' best. The passing convict Cunning was the best of all. His right name was Jack Doris and Sing Sing to Liberty. I have the book besides."

Preference for music and dancing was shown but without detail.

F., 12, 6th Gr. "I liked singing, playing on instruments and dancing."

M., 16, 7th Gr. (Il Trovatore.) "I liked the music, which was solemn and grand."

F., 13, 7th Gr. "I liked 'Robin Hood' because they had fine music."

F., 13, 7th Gr. "I liked vaudeville next because there was lots of singing."

F., 10, 6th Gr. "I like the modelling (yodeling) best, I liked dancing tricks and singing."

F., 14, 5th Gr. "I saw singing and dancing. The plays I liked best were first dancing, gogling (yodeling), acting moving pictures. The play I liked best was singing."

Appreciations of the comic was shown, but not in any specialized form, such general expressions being used as

"I like the plays that make you laugh."

"I liked the fun in the office."

"I liked 'Charley's Aunt' because it was funny."

"I liked the funny men best."

"I liked Topsy because she was so funny."

"In 'The Orchid' I liked the funny things and in Russell Bros. the funny makeups."

"I liked 'The Hired Girl's Millions' because it was so funny."

The comments upon animal performances were expressed in more detail, indicating that this interest when shown is of a deeper nature than that aroused by some of the other forms of entertainment.

F., 10, 6th Gr. "I liked the animal show at Keith's. I liked best dogs running in and out of wheels of a carriage and the lion and the girl."

M., 13, 6th Gr. I liked trick-ponies at Keith's."

M., 11, 7th Gr. "I liked elephants and ponies best. The elephants stood on their heads and the ponies done tricks."

F., 10, 5th Gr. "I liked the lion in the cage and the girl dancing in it."

M., 13, 5th Gr. I saw the Fair in Boston. The place I like best are animal first, next dancing, third singing. In animal I like the lion and the monkey."

Very few children showed any aesthetic appreciation, and this was confined to such vague statements as

"I liked it for beauty of scenery." "I liked the scenery best." "I liked the way the girls were dressed." "I liked the scenery in the Great Divide." "It was a Irish play. I liked it because it was pretty."

In addition to comments which can be classified are a number of miscellaneous remarks such as:

M., 11, 5th Gr. (Empire.) I liked it because it was kept clean.  
M., 11, 6th Gr. (Graft at Keith's.) I fell asleep at Graft.

F., 13, 5th Gr. The play I like best was Eagle Park. I like best new nickel show, York, New York. I did n't enjoy it because I have go with my aunt.

F., 13, 7th Gr. I liked love-making best.  
I liked the moral and acting.

M., 11, 7th Gr. I like first best. I feel like doing it.

F., 11, 5th Gr. I liked the story of the play.

F., 15, 8th Gr. I liked the moral in "Ninety and Nine;" the acting in Child of the Regiment.

F., 13, 8th Gr. I liked the dancing, singing, and the clothes the best.

From the consideration of the child as spectator, we now turn to the child as actor. 50 girls and 65 boys said they had taken part in plays. Of these there were but 2 girls and 4 boys who did not enjoy it and these make the following comments:

M., 13, 7th Gr. ("Singin Skewl.") I did not enjoy it because I had to many "oncors."

M., 14, 7th Gr. (Cinderella.) Did n't like it.

M., 11, 6th Gr. I have taken part in a play. It was The Canabol Islands. I did not enjoy it because they blacked me up and I could n't get it off. I had to go home with it on my face.

F., 12, 7th Gr. (The Letters.) No, I did not enjoy it, because everybody looks at you and talks about you and if you make a mistake they laugh at you.

F., 13 yrs., 7th Gr. I cannot remember the name. No, I did not enjoy it, because I was ashamed.

M., 12, 7th Gr. (The Mother-in-laws Visit.) I did not enjoy it, you have so many rehearsals and have to learn so much.

Seventeen boys gave no name but said they enjoyed it, without making further comment; 3 boys had forgotten the name; 12 boys liked it because they took part in it; 12 girls made no comments but enjoyed it; 3 girls had forgotten the name; 4 liked it because it was nice, and 4 liked it because they had taken part in it.

Specimen excerpts from those answering in the affirmative are:

1. F., 9, 5th Gr. I have taken part in a play myself. I had to ring the bells. I enjoy the plays because the lady wanted to wake me.

2. F., 12, 7th Gr. Yes, play in my cellar. Yes, because the robber Marie, and he wanted something to eat and drink and two policemen went in the refrigerator and then were very cold and were crying.

3. F., 12, 8th Gr. The Backward Child. I enjoyed it because I was the backward child.

4. F., 13 yrs., 8th Gr. In a play twice. Both times we dance the minuet in the intermission. It was at my summer home. The play

was "The School at Blueberry Corners." I enjoyed it very much. The people were dressed so old fashioned it made it very funny.

5. F., 14, 5th Gr. Vaudeville. Yes, because it shows us something and shows us how to talk.

6. F., 14 yrs., 9th Gr. Yes, Aunt Kate's Gooseberries. I enjoyed it because we had some fun practising.

7. F., 10, 7th Gr. "Singin Skewl." Yes, because we were all dressed up and had funny names and a funny man was the teacher and he said funny things.

8. F., 13, 7th Gr. In different plays. Can't remember the names. I did enjoy it. I had a great deal to do in all.

9. F., 14, 6th Gr. Yes. Imitating Gentleman Jim, the diamond thief. Yes, I enjoyed it very much, there was killing in it.

10. M., 10, 6th Gr. I took part in a play and it was a church affair. I liked it because you got lots of praise.

11. M., 11, 6th Gr. Sketch of Vambilar. Enjoyed it because I was dressed like a girl.

12. M., 16, 7th Gr. The Death of the Old Year. Yes, because I like to speak.

13. M., 14, 7th Gr. King of the Cannibals. I did enjoy it because it was a comical play and I took the part of a servant of the king.

14. M., 13, 5th Gr. Cinderella and Millionaire Detective, Cowboy and the Squaw. I enjoyed these plays because I had the best parts.

15. M., 11, 5th Gr. Cinderella, Singing. I did enjoy it because I got lots of money and the best part.

16. M., 10, 5th Gr. Red Riding Hood. I liked it very much the wolf was very funny.

17. M., 14, 6th Gr. Country School. Yes, because I was one of Miles Standish's soldiers.

18. M., 13, 7th Gr. Yes, the Black Hand. I enjoyed being in it because I was kidnapped in the second act.

19. M., 14, 8th Gr. In Boston. It was called the Prada. I enjoyed it because the other persons were about my age.

Seventeen boys and 5 girls had taken part in plays in their cellars or attics (chiefly cellars), imitating plays seen at the theatre, presumably.

The comments of children who have taken part in plays bring out various characteristics which are of interest. Some of the children lose themselves so completely in the story of the play that they fail to enter into particulars, but simply enjoy the impersonation of a part, as in 1, 2 and 18. The egoistic desire for self-expression comes out in other remarks as in 3, 8, 10, 14, 15, 17. The dressing-up instinct which is so strong in all children is illustrated in 4, 7, and 11. Two children recognize the benefit of training in expression as shown in 5 and 12, while a few show gratification of the social instinct as in 6 and 9. Desire for praise comes out in 10 and in one case a mercenary spirit is shown. A large proportion of children show the strength of the imitative instinct, for in addition to the plays in which they have been trained in their parts, characters and scenes which have made an impression upon them at the theatre are reproduced spontaneously by them in

their play. This is illustrated in 9, which is typical of the class of ideas which seemed to appeal most strongly to the imagination.

While a few of the illustrations given show individuality, the greater number were selected because they are representative of ideas which occurred again and again, sometimes in slightly varying forms of expression, but often in almost identical wording.

*Psychological aspects of dramatic entertainment.* It will be seen from these statistics that the theatre is a force to be reckoned with in the life of the child. It meets a need; it satisfies natural curiosity, a craving for excitement, a love for excursions into the world of the imagination. The more restricted and colorless the life of the child the more the need is felt. Settlement workers say that young people of these neighborhoods will go without their supper to get tickets for the theatre, and The United Hebrew Charities of New York is often asked to procure reduced rate tickets for children apparently more in need of food and clothing.

The manager of one of the large vaudeville theatres in a New England city says that boys stationed themselves outside his theatre and begged to such an extent for pennies with which to buy tickets that he was obliged to have a special officer detailed to keep them away.

In an article on boys' gangs, J. Adams Puffer, of the Lyman School, says: "The boy has a raging passion for the theatre. In the truancy record thirty-six out of sixty-four mention going to shows and five out of twenty-four ran away to go to them. Often, boys steal money or pick things out of the dump to sell in order to go to shows."

In this same connection Dr. D. P. Macmillan, director of the child study department in the public schools of Chicago, writes: "Every child who comes in for a psycho-physical examination from the Juvenile Court, either on a charge of delinquency or truancy is found to be a chronic frequenter of the cheap theatre." Even in the spring when the impulse to be out of doors is strong, moving-picture shows will be found crowded with boys. It would seem from this that plays chosen with discrimination might become a powerful factor in the education of the child.

But granting, as one must, the perennial attraction of the theatre, even admitting that theatrical nutriment is beneficial or necessary for young people, the question may well be asked, "What is being done to regulate the dietary?" Theatre managers have not been slow in turning to account the child's need to find satisfaction for the dramatic instinct, but what are educators doing to utilize it?

To say that the theatre does not occupy a high and dignified position to-day is to utter a common-place, and that the stage needs uplifting, a platitude. Writers on the subject have discussed various means of bringing about improved conditions, but interest has until recently taken the form of but little organized effort and that little has been limited to few directions.

It has been truly said that to elevate the theatre the people must be elevated, and that to elevate the people the theatre must be elevated. Many persons have thought that the establishment of national or art-theatres would do much towards bringing about the needed reform. In this way the theatre would be freed from the spirit of commercialism. Others maintain that it is impossible to force upon the public that which it does not want, however good it may be, and that the desire for something better must first be created and the taste of the people cultivated and uplifted.

It is in this connection that the theatre touches one of the educational problems of the day—the old question of how far cultural studies may be crowded out of public school work with impunity to give place to so-called practical subjects. The schools educate the people who create the demand for drama to-day, but how far they are educating them to appreciate the beautiful and artistic, the class of plays which appeal most to the general public goes to show.

"Your educational institutions do almost nothing to develop the dramatic or even the artistic sense. The purification of Aristotle is almost entirely overlooked," says Ordway Partridge, in the *Journal of Science*, 1886.

Thomas Davidson, writing on "The Place of Art in Education," says: "That dramatic work should form a branch of common school education, I have not the slightest doubt. So long as the theatre forms one of the chief amusements of the great body of our people, it is most essential that they should be taught in schools to appreciate a good drama and to reject a low-toned inartistic one. . . . The reason that so many from the classes seek low pleasures and coarse sensual delights, is that our schools, by neglecting their aesthetic education, have left them without means of finding amusement and delight in a rational way."

Arthur Henry Jones, one of the best modern English dramatists, writing on "The Foundation of a National Drama," says: "No other art is so intimately and vitally concerned with daily national life. No other art so touches and shapes conduct and practice—so swiftly moves thoughts, feelings, stirs passions, inspires and directs actions. What instrument so swift and surely operative? It is a powerful teacher either of bad or good manners, literature, habits."

Lombroso, the Italian criminologist, and other alienists have studied the evil effects of vice and crime as depicted in literature or on the stage.

Charles Klein, one of our best American play-wrights, in an article, "The Psychology of the Drama" emphasizes the moral effects of the drama. "It is a metaphysical fact," he says, "that mental pictures of vice seen on the stage act as suggestion to immorality, to vice, to false thinking, creating harmful impulses in the minds of those who are incapable through mental or physical weakness of resisting suggestion, or who have criminal tendencies." "The manager cannot and will not take this view," says Mr. Klein. He then goes on to tell how a manager in speaking of one of his (Mr. Klein's) plays, said: 'that's a good play, a very good play; it has splendid characterization, brilliant dialogue, good situations and all that, but there's no sexual interest.' He meant, says this writer, "nothing that appealed to the sex instinct of the audiences." "The general critical attitude is," he adds, "that plays should not be written for young ladies. It is a fact, nevertheless, that young people do go to the theatre. It is a fact also, though not generally understood, that psychologically considered, it is most dangerous in its effect on character to appeal to instincts of the young rather than to the reasoning faculties." He goes on to say that police authorities claim that crime is most prevalent, when the newspapers are full of crime and its punishment, and believes that vice on the stage should either be shorn of its gilding or eliminated. In speaking of ten or fifteen theatres and music halls in lower New York which give objectionable exhibitions, he says: "they are given to precisely the specimens of mankind least able to resist the suggestion to crime, arising from auto-suggestion created in an audience by false mental images derived from the stage, and when they realize the enormous influence of mental images good or bad, on character, they will seek intelligently to regulate the theatre.

"I believe the elevation of the standard will come not so much from the establishment of art-theatres and the like, but through the developing knowledge of physicians, metaphysicians and psychologists. . . . The psychological aspect of the play is its most important one."

To quote an older writer, Coleridge has said that there is an intimate connection between public morality and public taste.

"The moral and intellectual tone of a nation depends more or less on the way it spends its leisure. Given the amusements of a people, it is not hard to tell its character," says W. F. Ainsworth in an article entitled "Drama as a Teacher."

In early times the educational value of the theatre was rec-

ognized. The Greeks more than any people realized the power of dramatic art to inspire and elevate and wherever they carried their civilization built theatres as well as temples, and in the time of Pericles admission was furnished common people at the cost of the State.

In the Middle Ages the mystery plays were used as a means of spiritual and moral instruction, uplifting and educating the masses while seeming only to amuse.

The effects of theatre-going may not be immediately apparent oftentimes, since they are frequently too subtle to be traced definitely to their source. Nevertheless it is well to remember that the theatre is always educating either upward or downward, even though the educational feature of drama has little place in the thought of the majority of play-goers.

Miss Elizabeth McCracken, in an article "Play and the Gallery," tells of lessons learned at the theatre—how the remembrance of certain plays or characters of plays has helped people over critical places in their lives. One girl, when asked how she liked Cyrano de Bergerac, said she thought "all the trouble came because they cared so much for looks." Later, this girl comforted a child who had been badly burned and was likely to be disfigured by saying, "Well, it won't matter much, dear. Looks ain't what count. It's what we do that counts." She tells of a woman who had seen the Merchant of Venice and remembered Portia's famous mercy speech and remarked "and I don't want to be mean, cause of her." Another woman said that Othello believed everything he heard, and so remembering how *he* ended kept her from believing lots *she* heard. "These people," says Miss McCracken, "are unconsciously making a plea for the theatre." She mentions certain plays the influence of which has been harmful. A girl who had seen Nell Gwynn said "She was n't a good woman, was she? But in the play she seemed better than them; she gets along best. But even if she didn't, if they used to think her bad why do they think her good now?" Of "The Gay Lord Quex" a boy said, "The worst is the best and they gets out best." Miss McCracken remarks that the boy had seen Hamlet aright, so probably did this.

With these examples of Miss McCracken's in mind an attempt was made to find out what effects of the kind plays had produced on a certain young working girl who is an inveterate theatre-goer. She was unable to give any instance of application in her own life of lessons gained at the theatre, but some of her judgments and opinions are of interest. At first she could not recall anything that had moved her particularly, except that after seeing Uncle Tom's Cabin she "kept thinking of Eva's death all the next day." Given time to think back,

however, after a day or so, she offered comments on other plays. "As Ye Sow" had made an impression. "Mr. St. John," she said, "was on the shore. He was to be married; all the guests had arrived, the bride was dressed for the ceremony, but a ship was in danger at sea, and he was willing to pledge his own life." It was a good lesson she thought in unselfishness. He had to put back the date of his marriage to rescue the people. "It was very sad; the rain was pouring down on the stage." After a tragedy she was affected for ten or fifteen minutes. She criticised a certain actress in the rôle of Camille. "It was not as effective as it ought to have been." She had more sympathy for the woman in the story which she had read. "But do you think you ought to have sympathy for her?" she was asked. "Well, I think I ought," was the answer, "if it wasn't her fault—if she didn't have a mother and was led in and no one to lead her out."

For a number of reasons children are crowding theatres and places of amusement, as never before. That the theatre is now playing an important rôle in the education of the child, presents a problem which every school-board and organization which stands for good citizenship is bound to face in the near future. Heretofore interest has been directed to prohibiting what was actually bad: work has been remedial rather than preventive. Posters have been allowed on bill-boards until complained of by individual citizens; plays licensed for which little excuse could be offered when remonstrances were made to authorities. A disposition to please and to act in accordance with the demands of public will and taste, rather than up to a cultural standard, seems to characterize the decisions of those in charge of licensing shows in some cities.

A word may be added, however, in defence of those same officials, for in the constant exercise of the discriminating faculty, a play of necessity will be judged not as a single play, but relatively, being accounted tolerably good in comparison with those that are viciously bad.

How the power of discrimination may become weakened by frequently seeing what is low is evidenced by the case of the president of a "Watch and Ward Society" in a certain New England city who tried to guard public morals against offensive bill-boards and to inform the police of things which might go on that were of improper character. Pictures in art stores at one time were subject to investigation; also penny pictures, and it was agreed that the Society's representative should pass judgment on these. This agent, a clergyman, also agent for a Temperance Association and Public Purity Association was employed to go to theatres and listen to and criticize plays. It was understood that anything to which he objected should

be cut out by the police. He said that many times actors had had their cue when he was present and certain things usually given in a performance were suppressed in consequence. This man is said to have stated with "evidence of pain," that his taste had become vitiated, and the chairman of the police-commission would seem to have corroborated this view, when laughing about a controversy over some of the pictures he told how he had thrown out twelve that this clergyman had passed. If a clergyman and citizen of recognized good standing acknowledges a vitiation of his taste from constantly seeing vice depicted on the stage, it is well to realize the significance of its effect upon impressionable young minds and hearts. To guard such, to face the problem of the day, is not to employ destructive methods only, such as a more rigid censorship and the like, nor even to keep children from the theatre but rather to turn one's energies to work of more constructive character. Judgment should be exercised, not only as to the kind of plays given to the public, but having decided upon these, the sort suitable for children and for children of different ages.

To make the theatre educationally effective, the support and co-operation of the schools is necessary. Too much time and attention are given now to mere form and technique it would seem; too little stress is laid upon the interpretation of character, motives, etc., and upon moral values. Right here is a great opportunity for teachers, which may be turned to the advantage of that much discussed question of moral instruction in schools.

That more constructive work of the kind should be undertaken seems evident, but the fact that organizations that stand for public welfare (women's clubs, civic clubs, twentieth century clubs, public education associations and the like) are interesting themselves in the matter is a hopeful sign, pointing the way no doubt to greater consideration of the subject by the general public.

*Dramatic Work in Schools.* At present there is almost an epidemic of interest in dramatization as a part of primary school work. In the lower grades of public schools, teachers are having children act out stories, which have been read or told to them, for the purpose of gaining greater freedom and spontaneity of expression. It is difficult to say where this practice started, but certain it is that it is becoming widespread and that it has had a phenomenally rapid rise. It is, it would seem, one of the most recent developments of interest in child nature and follows naturally on that which was aroused in kindergarten work and school hygiene, and later the establishment of playgrounds and oversight of children's play, both in recreation and school hours.

In many cities, including Worcester, the introduction of this work, as well as the amount of time given to it, has been left largely to the discretion of individual teachers; in other places it is compulsory and has been reduced to a definite system.

It can be seen to best advantage, perhaps, at least in connection with such a system, in Newton, Massachusetts. Hundreds of teachers and interested visitors flock to the primary grades there, to see the system in practice and obtain points for carrying on similar work elsewhere. Dr. Spaulding, the superintendent of schools, and Miss Bryce, the supervisor of primary schools, have introduced dramatizing as a part of a method for teaching reading which they have been making out for some years with great care. This method is the result of experiments which were made in the schools of Passaic, New Jersey, some eight years or so ago. Dr. Spaulding and Miss Bryce, with the co-operation of teachers and principals, later developed and perfected it in Newton. They have recently published a manual for teachers and are now getting out a series of readers based on this system, several of which have already appeared.

While acknowledging that dramatization is "play, recreation, agreeable and healthful exercise of mind and body—and as such of value in the economy of the day's work," the manual states that it is more than a pleasant pastime, that "it plays an integral and important rôle in the successful teaching of reading" . . . that "it is more than a mere preparation for reading; dramatizing is reading in the fullest sense."

Not to go into a detailed description of this reading system, the bare outline of it is as follows. It begins 1st. with the story; 2nd. introduces rhymes which are to furnish the stock in trade of words; 3rd. supplements the printed matter with pictures, then comes 4th. dramatizing, that is the simple acting out of poems and stories told by the teacher. The idea as stated is to fill the children so full of the story that they will want to act it out, but not to have them memorize as a preparation. So long as the spirit and idea of the story are preserved, the child may use his own words to reproduce it. To what extent children avail themselves of such a privilege is illustrated by a Worcester child, who in acting "Red Riding Hood" cried "Oh my God—the wolf." It may be remarked in passing that the particular form of expression is a reflection of the environment, not of the method. The children need not only suggestion, but help, and a good deal of help, at first, in this work. Gradually, however, this is withdrawn, or should be, if the teacher is alive to the pedagogic opportunities of the situation and is bent on having her pupils acquire freedom, confidence and independence.

Many teachers, being entirely inexperienced in this work, have difficulties at first, and the tendency, in some cases, to

make a mechanical thing out of something the primary importance of which is spontaneity is all too natural. There is great temptation to seek a finished product and many an excuse or apology is offered to visitors for crude performances.

Both in the dramatizing as carried out in the plan of Dr. Spaulding and Miss Bryce, and when dramatic work is introduced independently of a system under other superintendents, those who best understand the aim and purpose of the work emphasize the fact that parts and time should not be divided mechanically; that the same thing should not be given out for dramatization too frequently, and that the same children should not be chosen for the same parts. The individual differences and mental attitude of the children are to be considered, the over-forward or supercilious child judiciously dealt with, and particularly the awkward, bashful, sensitive child, brought out, encouraged, given confidence and stimulated to wholesome competition.

The influence of the schoolroom is almost invariably inhibitory, but if there is a time when this is less manifest it would seem to be when the acting of a story is in progress. To see faces instantly kindle with animation, hands wave frantically when a teacher says, "Now would you like to act out something?" to hear one voice say, "O, yes;" another, "Just love to;" to see the eagerness to be chosen for a part—all this is to see interest aroused, such as is without rival during school hours—an interest which relegates even that favorite school diversion of many generations past, the spelling match, to a place far in the background. A shade of disappointment inevitably appears on the faces of those not chosen for rôles, but it soon changes for a look of absorption in what is being done by others, and not infrequently all the children of a schoolroom can take part in a play, such a play, for example, as "The Pied Piper," when as rat or child the motor energy of every young aspirant finds expression.

Surely when one sees the joy and delight this acting is to children, considered merely as play or healthful exercise of mind and body, this practice of introducing dramatization as a part of school work could find no small amount of justification. Something more, however, than the assurance that it is adding to the child's joy of life and making the schoolroom more interesting may be said in its favor, though it is too early yet, perhaps, to formulate definite conclusions about it. The practice is recent, but some results may be noticed. In many places where the work is being tried, children are new to anything of the kind; what is more of an impediment to good results, teachers are new to it also, and some of them, because of the very lack of such training in their own youth, are stiff and mechani-

cal in method. It is the teacher who must lead in breaking through the restraint and conventionality of the schoolroom. The teacher who is not sensible to the advantages of delicate sentiment and suggestion, who bases her instruction on hard, definite statement of fact only, who would sacrifice spirit and originality for over-exact reproductions of content is little likely to succeed in work of this character.

That some teachers are introducing this work because it is prescribed, working at it as something which they wish to bring up to the standard of efficiency of other required school work, but the importance of which pedagogically they have not grasped, may sometimes be very apparent and is an inevitable result of an often too great mechanization in school curricula.

Ask teachers what effects they have noticed from the work and for some of them the question seems to be raised for the first time. Others, however, say that they have noticed greater freedom in the use of English both in reciting and in conversation. This would seem to be especially true of foreign-born children. One teacher said that two Norwegian boys who had never amounted to anything in school got their start from dramatizing and had been able to do good work ever since.

Some teachers, enthusiastic over this work are perhaps over-emphasizing one phase of it, making such a point of expression as to produce a result, possibly temporary, a little verging on the unnatural or artificial. The pendulum must swing far both ways at first, doubtless, before teachers adjust themselves to a method for which natural endowment and education may have sparingly equipped them.

As the grades ascend, one finds less and less dramatizing introduced into primary school work, and when the grammar grades are reached, attention paid to it amounts almost to a minus quantity. There are so many required studies that time is lacking for work not yet standardized, and that which is relatively unimportant because not demanded for promotion can receive little attention. That the age of self-consciousness begins after the first primary school grades are passed, is a reason, perhaps, why precisely the same sort of dramatic expression should not find place in grammar schools, but that all dramatic work should cease until high school is reached, when it is quite the practice in many cities to give school plays, is unpedagogical, as irregular and unsystematized practice is of little benefit. That there should be such a break and no tiding over the awkwardness that is coincident with higher grades and that what has been gained in the first grades should be allowed to lose much of its effect through neglect, is to be regretted since it is difficult and in some cases impossible to revive an instinct which has once degenerated by disuse.

Even the practice of play-giving in high schools in many cities where it is the rule, needs reconstructing in many instances. The best students in English are chosen, usually, for the play. Mildly suggest to a teacher who acknowledges this, that the poor students of English may be the ones who most need the work and you will be answered that these cannot afford the time for it. Then too, the idea of the finished product is so much in mind that a play is cast with reference to it and with some justice, as regard must be had for the benefit to be derived by pupils who are spectators as well as by those actively taking part. To obviate this difficulty, class work with all taking part, then an assignment of parts or competition for them may be suggested.

In one high school known to the writer there is an English club of quite limited membership, only the best students in English being chosen for it, and this club gives occasional plays. Play-giving was found a necessary condition, in fact, of the club's existence, as interest in its work could not be kept up, otherwise. A teacher of the school in question, stated that the effect of the few members of this club upon her whole room was leavening; they acted as leaders, in a way, and their good reading, marked by freedom and self-confidence, gave confidence to others.

That individual teachers are fully alive to the value of dramatic work in education, is quite as true as that many of them are indifferent to it. One has only to talk with grammar and high school principals to discover that at least three points of view are current: First, quite a large number of these principals have given the matter little thought and attention; second, a number have considered it but are opposed to it; third, still others believe thoroughly in the practice of play-giving in school, introduce it into their work, and unlike some of the primary school teachers, are ready with their reasons for thoroughly believing in it. In the first class may be mentioned a grammar school principal of a New England city who when interviewed, laughed and said in substance: "Why yes, I believe in anything pupils can do that is pleasant; I do not object to anything in the line of school work, which does not impede the natural development of the child. If under good influences and they do nothing but play, it is all right. I agree with Hughes, of Toronto, that children have a good deal to contend with—who have to go to school." So very broad a view, however, can hardly be given as typical of any considerable class of teachers. Of the second class, I cite a grammar school principal who said that he did not believe in school plays nor theatre-going, for the main reason that children's minds are so much taken up with outside work. School

work should be kept in steady lines, he thought, otherwise there was dissipation of energy. Another principal said that he had a play given annually in his school, choosing one for its value in historical suggestion, moral influence, dramatic merit, etc., but he guards his young people carefully, as he has noticed elsewhere the bad effects of adolescent boys and girls practising together. They have outgrown the innocent, unconscious age and need most careful oversight. It is, he thinks, a dangerous time to bring young people of opposite sexes together, nor does he believe in taking the emotion, which should be the most sacred thing in life and making it artificial. He would, by judicious teaching and restraint, stimulate young people to highest regard and love of the opposite sex. A boy who had left school because of his inability through interest in the other sex, or rather in one of his girl companions, to apply himself properly to his studies, re-admitted to the school, said he was "over it." Taken at his word he soon proved his ability to do good work. A premature love affair had absolutely barred progress in school. There is always an element in every school that inclines towards the bad, and this principal does not believe in putting much in the way of boys that can be misinterpreted.

Under the third head may be placed a ninth grade grammar school teacher and principal who said in speaking of dramatic work, "I think it revolutionizes a class as nothing else will." She continued, "I think that any teacher can find time in school for work that she really thinks important." This teacher, on my visit to her school had her class go to the hall at the top of the building, where some of the pupils gave for my benefit, scenes from several plays they had been studying. The pupils chosen for this had never rehearsed together, as she does not ordinarily throw boys and girls together for rehearsals. These children had learned a great many parts. The scenes called for at this time were from the "Merchant of Venice" and "Julius Caesar." In choosing the characters for one of them, she said, "For the first part let—(naming a boy) go on; then after a while.—(naming another boy), may take his place." The boys arranged with each other at what point the change should be made, and the acting began. In learning the parts, the girls and boys take those of men and women indiscriminately.

In speaking of the effects of this work upon children, this teacher told of some of which she had learned, from parents. A mother said that so great was the interest of the child in dramatic work, that everybody in the family had been made to act. The father could not get away for a trip to New York, the servant girl had to act, and finally even the baby was made

to represent "a dirty little pig." In another family everybody had become interested in the dramatic work which was engrossing the child of the household except the father and one day he was found in his room reading "The Merchant of Venice."

In another case, a father who had been interested in drama and the theatre in his youth, to the extent of being "super" for great actors on several occasions, after his marriage to a woman whose tastes ran in different lines, had lost his taste for high class drama and had since gone to the theatre only for amusement. When his son one day began the speech of Antony, the father took it up, reciting it to the end, and from that time on showed an interest in his son's progress and recited with him. Later even the mother's interest was aroused and she rehearsed with them.

Perhaps the most interesting case of all those told at that time, was that of a boy whom the school had utterly failed to reach. He scuffed his feet, and did everything to annoy. His teacher thought "Must I go through the year and never get at that boy?" But there seemed to be no way of appealing to him. Finally he took part in a play making a great success of his rôle, a comic one. The teacher laughed heartily at his performance, and from that time the boy was won over. He lost his sullen look and showed quite a different side of his nature. After his promotion to high school he remained the firm friend of this same principal.

The enthusiasm shown by this ninth grade teacher and her manner of exhibiting the dramatic work of her pupils to a visitor within regular school hours finds almost a parallel in an incident which especially impressed Mr. A. Caswell Ellis on his visit to French schools, which I quote from his article. A principal of a common school in Paris broke up several classes to have a large number of pupils go into the auditorium and give a play they had themselves written. The children, he says, were from ten to fourteen and had written the play, of rather heroic and classic type, with a little help from the teacher, and had planned the stage setting, made helmets, breastplates, etc. They acted it out, he says, after their own ideas with great enthusiasm and intensity." The principal of the school was most enthusiastic about it and said, "Ah, it takes a lot of time but it is of more worth than the learning of whole pages of some literature book. What we want is to make these boys sensitive to the things around them, to the beauties of plot, of expression of thought; and this attempt to do something themselves and their appreciation of the beauties of their own work will make them more sympathetic and more sensitive to the beauties of the great masters."

*Dramatic work in Colleges.* In recent years there has been

a development of dramatic work in colleges and universities that has tended to raise it from the level of mere amusement and pastime to an educational factor and to give it a dignity and importance which it has not hitherto possessed. For years students have been in the habit of giving farces for their own amusement and for the entertainment of their friends, and have had clubs which existed for the purpose. It has been customary, too, for different academic departments to give plays at intervals, and for graduation classes to make them features of their commencement programmes. These attempts have been oftentimes of an ambitious character, and in many instances so creditable in result as to receive approval and commendation from college faculties. Most of us are tolerably familiar with work of the kind in our principal universities and colleges.

Harvard has its societies which give old English as well as French and German plays, and was the first college to attempt a Greek play on an ambitious scale. The work of the Cercle Français has become well known there. For sixteen years it has been giving French plays and its reputation for these has been carried across the water. In a recent book "*Le Théâtre au Collège du Moyen Age à nos Jours*," M. Gofflot, the author, devotes a good deal of space to an account of what had been done by this society, and M. Jules Claritie says in the preface of the book, "M. Gofflot has wished to show the decided influence of the theatre on education, and it is by the theatre that the Cercle Français of Harvard, next to professors and lecturers, has spread and popularized our French language."

At Yale, students take an active interest in play-giving. They have an association which was formed for the purpose of giving classic plays, and which furthers in every way the efficient study of drama. It is instrumental in the matter of procuring distinguished actors and students of drama as lecturers, engaging the Ben Greet company to give performances there, etc. Some idea of the popularity of the club may be had from the fact that awhile ago there were one hundred and fifty applicants for membership when only twelve vacancies were to be filled.

The University of Pennsylvania also gives serious study and work to the matter of play-giving. It produces a number of plays during the year and at Easter, one that runs for a week, and some years ago gave a play in the largest theatre of Philadelphia.

In the University of Ohio there is great interest in play-giving, second only to athletics, and felt by a rather more serious set of students, it is said.

The two universities of California have done as much, if not more, than any in the country in the way of play-giving and

offer prizes for the writing of farces. The University of California has an out-of-door theatre, modelled on that of the Dionysian theatre in Greece. A graduate of the Sargent Academy of Dramatic Art, a former actor, is in charge of the dramatic training there and the head of the English department is a well known student of drama.

In a number of the colleges for women, plays are given by student societies during the year and those of graduating classes are of a high order. The outdoor plays of Wellesley are now famous. A unique feature of commencement week there is the picture dancing which is a development of the educational dancing which Miss Hill has striven for years to make an expression of the play instinct, bringing back something of the spirit of the lost Terpsichorean art of the Greeks. Smith College, since it gave its Greek play nearly two decades ago, has had performances of an ambitious character each year since. A professional trainer is employed and the senior dramatics have become an event which draws critics of drama annually.

Commencement plays in many universities are among the pleasing features of the graduation programme and represent careful and conscientious study, usually of a masterpiece, for while faculties do not insist upon it, they of course favor the giving of something really worth while. The character of some of the literary courses offered now by colleges is significant in this connection. Some of the universities include practice in writing farces, the criticism of plays and a study of modern plays.

The University of Minnesota gives practice in play-writing in composition courses.

Professor Baker, of Harvard, has introduced the study of modern plays into his work and the acting of plays, putting into practice the belief which he voiced at a meeting of the League of Political Education in Hudson when he said, "I would suggest that the institutions in which our boys and girls are being trained should teach them that plays are plays, and not merely literature or poetry."

Professor Dodge, of the University of Illinois, in an article which appeared in the Nation, 1905, said, "No branch of English work has shown more marked advance in recent years than the study of the drama. This is also true of French and German. The interest in drama as a distinctive literary type is shown by the number of revivals of early English plays." Professor Dodge makes a plea for more consideration from theatre managers in the case of university towns. "These towns," he says, "with their representatives from different parts of the country offer splendid opportunities for the adequate performance of standard plays. This has always been

recognized in Germany, where special rates are given students," and again he says, "It is not unreasonable to hope that our leading managers may consider the claims of university towns, thus providing laboratory work in the drama that is essential to its proper study. A university population of three thousand ought to be able to satisfy the demands of the most exacting manager, and in the English department of each university will be found not one, but a dozen advance agents with enthusiasm the more convincing because of its sincerity."

In none of the colleges does dramatic work yet find a recognized place in the curriculum, but there is a near approach to this in some cases, as for example, at Harvard, and the fact that the subject has been under consideration and has met with the approbation of individual professors is perhaps encouraging. It would be a great deal to expect of any college faculty, considering the ideas that prevail as to what is or is not academic, that it should offer in its catalogue courses in play-acting. Under a more euphemistic head, however, such as elocution, oratory or practice work in connection with drama courses, it is not impossible that it may yet figure.

Miss Mabel Hay Barrows (now Mrs. Mussey) did some interesting work in schools and colleges a few years ago, in the way of play-giving. A college graduate herself, her opinion in regard to the effect of dramatic training on students would seem of value as compared with that of the professional dramatic coach.

Besides giving Greek plays in universities she presented Latin plays in many preparatory schools. A letter received from Mrs. Mussey is here quoted by permission. The list of plays given in schools is included here and the mention of those given by native Greeks which, though not coming naturally are under this section of interest in connection with the general subject of this paper.

"Latin plays, 'Feast of Dido' and 'Flight of *Æneas*' my own arrangement from the *Ænead*, I have given in the Girls' Latin School, Boston, Hotchkiss School, Lakeville, Connecticut, The Hill School, Pottsdam, Pennsylvania, Phillip's Academy, Andover, Massachusetts. The same play, or rather the Flight of *Æneas* was given in Dearborn Seminary, Chicago, and Rochester, New York. These I directed by correspondence only.

"Of modern plays I gave 'En Marque' by Josephine Preston Peabody, in the Girls' Latin School, Boston, and 'The White Butterfly' (one of my own plays) in the Staten Island Academy, New York.

"Of Greek plays, I gave my own dramatization of the *Odessey* 'The Return of Odysseus' at Radcliffe, Brown University, Iowa

College (Grinnell), Colorado College, University of Minnesota, Toronto University. 'The Feast of Dido,' I should have said was also produced from my notes and directions, but not under my management at Boston University.

" 'The Ajax of Sophocles' I produced in the open air Greek theatre at the University of California. I produced the 'Return of Odysseus' in two successive years in Chicago, once at the Hull House theatre, and once at the Studebaker, with native Greeks as actors. Also, with Greeks I gave the 'Ajax' at Hull House and in New York City. That is all I seem to recall, though I gave my 'White Butterfly' at Teachers College, New York. . . . .

"Almost everywhere I think faculty and students agreed on the great advantage of the training. My experiences in the different schools and colleges were very varied, of course. One thing I always insisted upon; the preparation for the play must never interfere with school or college work. The time given to it by the students must be taken from their recreation time. Consequently the faculty were never asked to take the play preparation as an excuse for absence, or lack of study. . . .

"Almost everywhere I think faculty and students agreed on the great advantage of the training to the actors. Where the parts were thrown open to competition there were often three or four competing for each part. I would frequently have fifty or sixty students practising the dancing though all knew that not more than fifteen or twenty could be chosen. It was usually surprising to the faculty to see how many of the students they had not specially noticed were 'brought out.'

"I made a special point of training them all first in *carriage* and *poise*. Where men were to take the part of women I made them walk daily for an hour at a time, up and down long corridors dressed in flowing robes (made of stalwart unbleached cotton). I gave them all "setting up" exercises. Even the principals had to take some dancing to limber them up. The course in dancing was so thorough that a football player has gone home and tumbled into bed quite tired out! I also taught them what I could of the theory of action on the stage, but tried very hard to make the play so *real* to them that it would not seem play acting. I think a large part of our success was due to this, that the actors so truly felt their parts that the whole performance was very sincere, simple and convincing. I usually avoided if possible having any actors who had ever been in college plays or other amateur theatricals. I also gave them special voice-training, and the results of that the teachers were not slow to see.

"While I had countless letters and expressions of thanks from the faculty members, I have not known of any permanent

effort to have such dramatic work count as a regular study. Only once or twice did I hear of students getting any college 'credit' for their work in the play, but they got something much more valuable.

"I heard the other day indirectly, of a young clergyman of distinction, who said the best thing that ever happened to him was the training he got in one of my Latin plays.

"It used to be quite astonishing to see what one could do with many of the students, and to see what very surprising and delightful things happened as a result."

*Place of the drama in German schools.* We look naturally to Germany as a leader in matters pertaining to education, and it is interesting to note what is being done there, to satisfy the dramatic instinct of the child, and turn it to account educationally. Something which Professor Münsterberg said in a lecture in Worcester this past year gives an idea of public taste and demand for drama in that country. Speaking of the theatre he said: "It means quite a different thing from the American theatre. There it is placed beside the school and the church as the greatest cultural factor in the inner life. The question of the theatre is the question of the deepest life of the whole community. In America the stage is superficial, life is so serious that they go to be entertained. That spirit, of course, grows. At least six or eight serious and good plays are given in a German city throughout the season and they keep changing. Berlin alone gives more Shakespearean plays than the whole of the United States, and if that is true of Shakespeare; it is true of the best modern dramatists." Continuing, he said: "Chamber plays are now being given after the plan of chamber concerts and a new theatre has been built in Berlin for them."

To supplement these views of Professor Münsterberg, I give here some statements recently made by a German resident of Berlin, in answer to certain questions which had been sent to Germany.

These questions were as follows:

1. To what extent are theatres in Germany subsidized by the government?
2. What sort of censorship of plays is there?
3. Are plays written for children to any extent and are plays given for them expressly?
4. Are plays given in schools?
5. Are children encouraged to go to theatres?
6. What is the attitude of clergy and educators toward theatre-going?

These were the answers received:

1. "In all the capitals of Germany with but very few excep-

tions, if any, there are theatres belonging to the crown or state, subsidized by either of the two or by the respective municipalities. In Berlin three play-houses: "The Royal Opera," "The Royal Play House," and "The Royal New Opera Theatre," belong to the crown and their expenses which considerably exceed their receipts, are borne by the king of Prussia, the Kaiser.

All the other theatres or the like play-houses, of which there are about forty, are private ventures and in no way subsidized.

2. The censorship of plays is in the hands of the police, against whose decrees the ordinary law courts can be appealed to.

3. No plays to any extent are written for children, but performances of plays, chosen expressly, are given for children periodically or in pursuance of their licenses.

Thus by command of the emperor performances are also given in the royal play-houses, and by a more recent command performances are given once a month in the Royal Opera Theatre, expressly for the families of the working classes.

4. Plays are given in schools on special occasions, school periods and the like, but only by the pupils of the higher classes, and, as a rule, before an invited audience of relations and friends of the school pupils.

5. Children are not encouraged—if not, indeed, even forbidden—to go to theatres by themselves; they are, however, periodically taken in classes by their principals to plays expressly provided for them in the respective theatres licensed by the authorities.

6. The attitude of the clergy, generally speaking, is averse to theatre-going; that of educators, however, is, on the contrary, particularly favorable to it."

An article by Raphael Löwenfeld, in "Das Buch vom Kinde," published last year in Berlin, gives further information concerning free performances for school children in various German cities. In Hamburg, through the instrumentality of the Teachers Association, arrangements have been made for special performances of classic plays in the Stadt Theater for pupils in the peoples' schools. The cost of them is borne by a private individual. In Bremen, the Teachers Association has done the same thing and here, also, through the generosity of a private individual. In Dresden, through the influence of the Teachers Association, there has been established a series of royal performances for the upper classes of the peoples' schools. Sixty pupils are taken at a time and it is decided by lot which shall go each afternoon. The performances are given regularly in the spring months. The time for them is taken from that devoted to the German language. Each teacher and child pays 25

Pfennige (6 cents), but the principal part of the cost is borne by the crown, 1,000 marks being paid from the royal exchequer. For the higher schools, tickets that are left over for the best classical plays are sold to pupils for one *Mark* apiece. In Berlin the Schiller Theater for the last five years has been able, through the co-operation of city officials, to give ten performances yearly for about 12,000 pupils of the common schools. The cost here is defrayed from the interest of a fund devoted to useful or artistic ends, which is under the control of the *cultus* minister. In Charlottenburg two plays yearly are given to 1,200 pupils, and here the cost (840 marks) is included in the annual school budget. This is probably the most decisive step of any in the matter of providing plays for school children at public cost.

Among the Germans who advocate dramatic training and theatre-going for children may be mentioned Dr. Rudolph Blümner, who in an article on "The Child and the Stage," says, "One has only to watch children play to know how great a rôle dramatic art plays in the child's life." The great effect on the imagination is shown not only in the play of the child but in the fact that robber and murder plays actually lead to juvenile criminality." The number of German plays fitted for school children is very limited, says this author. The plays of Schiller, Lessing and Goethe are given—those most commonly produced being "*Wilhelm Tell*," "*Jungfrau von Orleans*," "*Minna von Barnhelm*," and "*Götz von Berlichingen*." These, and in some cases, "*Maria Stuart*," were the plays given under the auspices of the Teachers Associations, already mentioned. After the first of these plays had been given in Hamburg the children were examined carefully on them, with a view to finding out those best understood and of most value for the pupils, and only one, "*Wilhelm Tell*," was thought by all to be entirely suitable.

Löwenfeld also comments upon the lack of plays suitable for children. "Only recently," he says, "have attempts been made to arouse imagination by means of poetic representations." He criticises the fairy-tale performances usually given and says, "If they would have regard for the real value to the child, supporters of the theatre should consider the giving of these in something else than the silly fashion which has nothing to do with the need of the child." He speaks of the value for older children, those from twelve to fourteen, of seeing German masterpieces on the stage, after they have studied them in school, and says that "theatre-plays for children ought to become an institution." "Everywhere," he says, "that it is possible, and where is it not possible in Germany to-day, the parishes should introduce theatre-pieces as part of the school

instruction in the free course. Discount can easily be arranged for with managers, and those parishes which support a theatre will be able to make school performances a part of their duty, and so the means and ways will be solved."

In deciding which classes shall attend these performances, he thinks the opportunity should be restricted to those children old enough to read a dramatic poem, *i. e.*, to those of the upper classes of the common schools, for "to children not so far advanced, the stage says nothing or not the right thing."

Speaking of the effect of the acted play on children, he says: "The first visit to the theatre must, for every normal child, be of overwhelming influence, but for that must be presupposed a great poem and ripe receptivity of the appropriate age. What the child has read, again stands before him in light and color as he knows it in the actual. Men of other times speak to him in the lofty speech of poets. Deepest feelings find echo in the childish heart and higher thoughts, which everyday life does not bring to him, now appeal to his understanding." Again he says, "In the positive experience of the first day's impression lies the starting point of a spiritual development and an increase in the joy of living, and the negative result is of inestimable value for moral development. This is easily attainable for the children of the rich, who see too much rather than too little, which is unconditionally harmful, for impressions become less strong, but for the poor, friends of art, education, associations and the municipality, should provide."

Dr. Blümner pleads for the dramatic education of the child, thinks early training is necessary and says the capability of declaiming a poem is not a talent turned towards acting, but is acting, and that dramatic art of all others is the one that should be and is, earliest cultivated.

All little children, he says, are taught poems, but attention is all put on mere memorizing. The result of slovenly speech in schools, he thinks, appears later in public professions.

He speaks of the significant rôle the development of drama and theatre formerly played in education in Germany. Every-day enjoyment of the theatre, in his opinion, is not suitable for children. It should be a special event, otherwise it takes away from the experience that ought to belong to later years. It is often believed, he says, that children are not taken to see classic pieces at the theatre often enough. This is a mistake. The too early introduction to the best is almost as dangerous as literary worthlessness, for as Grillparzer has said, 'The theatre is no trivial school for the unripe.'

Dr. Blümner speaks, too, of the lack of dramatic literature for children and says there is only one really significant child-tragedy, "Frühlings Erwachen" by Wedekind, which has for

a subject what he considers the most important problem, the sex-awakening and sex-life of the child. Though the best tragedy Wedekind has written, it does not reach, he thinks, the standard of true drama. A series of other struggles of the child soul, for example, the awakening of the feelings of honor and of guilt, school difficulties, etc., have been treated, by Robert Saudeck, in a number of plays, but they do not really reach the real psychological problem.

The place that the puppet-play has held in Germany and other countries, its significance in childish play and its important rôle in the lives of great writers is a point worthy of note. Much German drama has passed through the puppet-theatre, and some of the writers of to-day, Schnitzler, Maeterlinck and Hugo von Hoffmannsthal have thought some of their pieces suited for it. The puppet-theatre from its smallest form in the play-room, the wandering little theatres, and those permanently located in large cities, not only in Italy, where the puppet-theatre has long been a source of enjoyment to the people, but also in Paris and Munich, have played an important rôle in the life of children, the one in Munich run by "Papa Schmidt," being well-known to travellers. In Germany as in America there is a lack of dramatic literature for children, and nothing analogous to the literature of the puppet-theatre exists. There is an inexhaustible treasury of tales for boys and girls, but drama for young people is lacking. This is partly due to the nature of drama. Things which children can understand are not suitable for it. This would seem to show that there is an age when folk-lore and stories are the best food for the dramatic instinct.

There are a large number of children's comedies, but they are of little worth, though the material of these is worthy of better treatment. There are fairy-stories dramatized, which do well for young children but better for older ones, but between these and dramatic repertoire, there is a great break.

It has been supposed, by many people, that a children's theatre was an extremely modern institution. In reality one was started in Berlin a little over fifty years ago; though for a different purpose and under widely different conditions from those governing the rise and development of a children's theatre in our own country, "The Children's Educational Theatre" of New York.

An account of this German children's theatre may be found in the *Jugendschriften-Warte* and is briefly as follows: The originator was the poet, Baron Anton von Klesheim, author of the "Mailufterl," a collection of folk-songs. He seems to have been a thoroughly original nature. He was born in 1816 and at an early age went upon the stage under the name of Platze.

In 1846 he appeared under his own name as reader of his dialect poems, and made them the fashion. His first attempt at drama was a child-comedy, "Der Erdgeist und die Wasserfee," which he wrote in his fiftieth year, and for the production of which he chose Berlin. There were many difficulties in the way of carrying out his plans, for Berlin was then small; he needed a hundred children and these were hard to obtain, for he wanted only beautiful children, beautiful in form and face.

Out of ten or twelve actors of first rôles he wished to make miniature artists.

The first performance was given in the theatre hall of one of the well-known hotels, and all the prominent people of Berlin were present. The cheapest seat was \$1.00. The success of this was beyond all expectation. No expense had been spared in the matter of stage setting, costumes, orchestra, etc., and the little people, after the first, played wonderfully. The children's chorus was especially charming. The young performers were nearly buried in bonbons, flowers and oranges. At the close, living-pictures of the poets' own arrangement were given. For weeks all Berlin spoke of nothing but the "Children's Theatre." The content of the play, easily understood, was spread through all Berlin child-world by these one hundred children and reproduced everywhere, when half a dozen of them came together. Even in school at recess it was the favorite game.

Parents seemed to go wild. In the prominent families it was considered as the greatest honor to have children chosen. For the most part this desire was not fulfilled, the writer adds.

The theatre ran five months, but in spite of its great success was a personal loss to the baron. Notwithstanding this he gave valuable presents to the children when they left.

The writer says that this was the last "children's theatre," but in an editor's note the statement is contradicted and the historical plays which were given under the direction of an Alsatian pastor, Herr Pfarrer Siegfried in a schoolhouse by boys, on five or six successive evenings, are mentioned.

An interesting point is brought out here. This pastor asked one of the peasants of the parish before a performance, why they had to "carry on" so in the village, and was answered, "Because there is no theatre."

This the pastor tried to remedy by good books, magazines and festivals.

*The Peoples Institute.* While we have nothing in the United States which parallels the work of the Teachers Association in Germany, there have been during the last few years various movements which, though differing in form, are similar in spirit, in that they recognize the psychological need of some

form of dramatic gratification. In illustration of these movements which are constructive in character, those furnishing something of educational value to substitute and counteract the influence of cheap shows, may be cited the work which is being done by the "Peoples Institute," a philanthropic enterprise started two years ago in New York. The aim of this organization is, according to its constitution, "To furnish the people continued and ordered education in social science, literature and other subjects and to afford opportunities for the interchange of thought." It has its headquarters at Cooper Union, its field of labor is East Side New York and at its head is Mr. Charles Sprague Smith, who for eleven years was professor of literature at Columbia University.

Of all the work undertaken by the Institute, that of its dramatic department has shown as favorable, perhaps the most favorable, results of any. Growing, as it did, out of an effort to supply entertainment to a few hundred people assembled occasionally in a small lecture room of Cooper Union, its scope has so enlarged that it now offers to thousands of persons of limited means, opportunities for seeing the best that the theatre affords. An outline history of the work as developed by this department is as follows: In the spring of 1901, Mr. Smith engaged Marshall Darrach to give at Cooper Union a recital of "The Merchant of Venice." This was so enthusiastically received by his east side audience that it was decided to continue Shakespearean recitals. For three successive seasons the audiences for these so increased in numbers, that finally even the great hall of Cooper Union was inadequate to the demands made upon it. In consequence of this success it was decided to give regularly staged plays of Shakespeare. Accordingly, Mr. Smith engaged the Ben Greet Company for a series of performances, including a matinee for school children, tickets for this being reduced to twenty-five cents. A single school purchased 700 tickets.

Mr. Smith next tried to organize a company to give a Shakespearean play, and under the direction of Mr. Franklin Sargent, of the Academy of Dramatic Art, "Romeo and Juliet" was given. The cost of such a production, however, and the difficulty of obtaining a suitable cast with the limited means available, caused this plan to be given up.

The directors next turned their attention toward interesting stage managers and obtaining reduced rate tickets, not only in the case of Shakespearean drama, but for other good plays.

The eagerness with which, not children only but members of various groups, labor organizations, department stores, etc., availed themselves of such privileges, when offered, and the fact that as time went on, an increasingly large number of plays was presented to the Institute for approval, led to the definite

organization of its dramatic department. A general committee was formed, consisting of fifty prominent New York citizens; also an executive committee of twenty well-known men and women who should pass judgment on the plays.

A system was organized by which plays were subjected to a standard test, and arrangements made directly with managers for reduced prices. A play might be rejected for one group though offered to others as, for example, comparatively few, suitable for adults, could be recommended for school children of the lower grades. Last year 60,000 people in New York, it is claimed, saw plays at reduced rates, and in one-fourth of the year, as many people had used their reduced rate tickets, as in the whole of the preceding year. There are over 600,000 teachers and pupils in the New York schools and half a million or so of people represented in other groups using these tickets, so that with the increase in the work of the Institutes' dramatic department which one is led to expect, it is easy to see what a tremendous influence it is likely to exert upon the population of New York. Not only has this work enabled those of limited means to see good plays at the price of poor ones, but it is an encouragement to theatre managers to offer better productions. Indirectly, the success of some plays has been made, it is said, by the patronage of the Institute.

As the work of the organization becomes better known, other cities may follow the example set by New York. So far as known exactly the same sort of work is not carried on elsewhere as yet, though something like it has occasionally been undertaken in Philadelphia and Boston. Frequently where a company has gone from New York to these cities, the Institute has sent information to certain people there whom it has tried to interest in the matter with a view to their starting similar work in these places, but not much has come of it.

The Public Education Association of Worcester has a committee which has entered a little upon work of somewhat the same nature. It has given approval to plays in a few instances, and in one, that of the Ben Greet performances, secured reduced rate tickets for teachers and school children.

*Dramatic Work in Settlements.* Since the establishment of social settlements, dramatics have come to be used more and more in their work as a method of education. It has been found that a play furnishes oftentimes the necessary incentive to effort on the part of young people and children, who will work for this as for nothing else. Many a settlement has its record of plays, more or less ambitious in character, which have been successfully produced. Classics, even, are attempted, and this is not so surprising in view of the fact that the personnel of settlements includes many college men and women

who have taken with them the high standards and ideals which have come to prevail in connection with college dramatics.

It is not possible here to go into the work of the different organizations which in their efforts to uplift and teach the masses in varying degrees are making use of dramatics as a means of accomplishing their ends, but that of a few may be mentioned to indicate the character of what is being done by them.

Many settlements have regular dramatic clubs and others give plays occasionally.

Hull House has several dramatic associations, senior, junior and children's, which give plays of Shakespeare, Ibsen, Shaw, melodramas, dramatized stories and fairy tales, in accordance with interests represented by different groups. Among the plays of especial interest given recently at Hull House, was a dramatization of a story, "The Wife of His Youth," by the colored author, Charles W. Chesnutt, which was given by a company of young colored people. Groups of Greeks and Italians have given plays in their native languages, the management of Hull House believing that the best way to transform members of our foreign population into good American citizens is to preserve and ennable their national characteristics.

Hull House has also a moving-picture show or five-cent theatre which was started a year ago. On its films are pictured, fairy-stories for children, foreign scenes to delight the emigrant populations, incidents of stories which portray acts of heroism and convey moral lessons.

Settlement workers would seem to have recognized the educational value of drama for both sides of the footlights. Not only do they use it as wholesome entertainment, but it is also a medium now for training speech, manners and taste, a means even of intellectual and moral development.

Miss Madge Jennison in a recent article in the Atlantic Monthly, shows something of the actual workings of the method. She brings out a point too often neglected by teachers in the giving of school plays when she says that one must remember that the play is for the club, not the club for the play, and speaks of the harm that might result from the acceptance of failure in a part, and the benefit that comes when a child really "arrives" and does something she was sure she could not do. She tells how conversation is carried on in terms of the play and of how taste is influenced; for though tears may be shed at the very idea of giving up a "pompadour," or wearing an old-fashioned gown in place of one with a pretty yoke, yet how in the end *esprit de corps* prevails and the individual learns to subordinate herself in the interest of the group.

Denison House in Boston, has also done some excellent work in dramatics. It has given a number of Shakespearean plays, "Richelieu" and other classics, with great success in Boston, neighboring towns, and at Wellesley College.

In the dramatic work of Henry St. Settlement, New York, the same ideal prevails as at Hull House, that of preserving the traditions of the different nationalities represented in the neighborhood, by having the children express these in a reproduction of various national festivals. In the May festival given annually there, there is an attempt to reproduce their ancestral dances and customs. In celebrating these they are in reality reviving a primitive impulse, going back to the most ancient form of drama, which found expression in the rites and ceremonies with which man, far back in the history of the race, expressed his awe and wonder at the changing seasons and celebrated the rebirth of spring.

*The Children's Educational Theatre.* Similar in spirit to the dramatic work of settlements, but quite different in its inception and organization, is that of the "Children's Educational Theatre." This theatre, like the Peoples' Institute, represents a movement in the direction of counteracting the influence of cheap shows by furnishing a substitute of educational value to people of East Side New York. It stands, however, for something more than the mere substitution of worthy for unworthy drama; it aims not only to meet the need of the child as spectator; it is alive to that of his growing imagination and unab-sorbed energy, the need to express himself as creator or as actor.

The theatre was started five years ago and since then has been under the auspices of a Jewish charitable organization, "The Educational Alliance, which has its headquarters in the Russian-Jewish section of the city. It accomplished its good work very quietly at first; only recently has public attention turned in its direction. With the last year or two several magazine and newspaper articles have attracted attention to its work and it received particular notice when, last November, during the run of "The Prince and the Pauper," with which the theatre opened its regular season, an invitation performance was given in honor of Mark Twain. On that occasion President Eliot and other guests made speeches, and letters from President Hall, Professor Brander Matthews and Professor George P. Baker, commanding the work of the theatre, appeared upon the printed programmes. Not long afterwards it again attracted notice when on the enforcement of the Sunday law its Sunday afternoon performances had to be discontinued.

The theatre owes its beginning to the time when Miss Minnie Herts, its manager, filled a vacancy on the entertainment com-

mittee of the Educational Alliance, and in an attempt to improve upon the character of entertainments previously given then conceived the idea of training better than anything they had had previously, and something which should be at the same time of educational value.

Amateur clubs of the locality had given plays, but not successfully, according to Miss Herts's standard. The importation of outside talent was not practicable, yet to utilize East Side material in the production of a literary masterpiece was an undertaking of no small proportions. The play finally decided upon was "The Tempest."

To begin with Shakesperean drama in a locality where melo-drama, vaudeville and moving-picture shows had been the rule was, indeed, a departure.

Mrs. Emma Sheridan Fry, former actress and teacher, was put in charge of the dramatic training, and after much serious work and study the play was produced. That it was an artistic success might well have been considered cause for congratulation by those who had attempted so arduous an undertaking. It meant something more, however, than the creditable production of high-class drama; an educational work had been inaugurated, the possible scope of which could hardly have been foreseen! The immediate effect of the play upon the neighborhood was electrifying. This, more than its artistic success, gratifying as that was to the management, showed the real value of the experiment. It was discussed on street corners and doorsteps, in factory and tenement; it was acted out in homes. These people, who during the week diligently plied their humble trades, trundling their push carts along the narrow alleys or toiling in sweat shops, had shown themselves capable, with a little guidance, of response to the humanistic appeal of a great drama. Shakespeare had entered the hearts of East Side people. Their contracted horizon had been widened. No matter how sordid or dreary the surroundings, pictures of beautiful scenery were in their minds, new ideals appealed to their imaginations. Interests which had been aroused or stimulated by this experiment in "higher dramatics" were not allowed to languish.

"The Tempest" was followed by other plays. "The Forest Ring," "Ingomar," "As You Like It," "The Little Princess," "Little Lord Fauntleroy," "Snow White," and "The Prince and the Pauper," were given as Sunday matinees for these Jewish young people and children, with occasional evening performances for adults, up to the time when conformity to the Sunday law made the continuance of matinees impossible, when a succession of one-act plays was put on regularly on Saturday evenings.

It is not too much to say that the success which attended the giving of the *Tempest* marked the productions of the plays that followed it. Not only was this true in regard to their artistic excellence, but more and more as time went on, changes for the better in the neighborhood became apparent.

How thoroughly the children of the audience entered into the spirit of the play was indicated by their excited exclamations at critical junctures, their warnings to avoid impending catastrophes, their lamentations where these were unheeded.

The speech and action classes for those engaged in the study of a play always numbered many more members than the cast of any piece demanded, and these classes became the very strength and foundation of the whole work as it developed.

A play was first studied as a whole, then the different parts were taken up in detail, and later the assignment of rôles made by the vote of the young people themselves, their choice being subject to the decision of the management. The possibilities and responsibilities of the situation became apparent in the opportunity afforded here for indirect teaching. Each play was studied not only with reference to literary and dramatic merit, its historical teaching, etc., but motives governing the characters were considered, behavior analyzed, comparisons drawn and in so far as possible morals pointed and ethical principles inculcated. In the choice of every play not what would be of general educational value was alone considered, but also what particular lessons needed especially to be impressed upon members of the class in training, upon spectators or the neighborhood in general. The value of such productions for East Side audiences was apparent, but fully as important was the effect on the young people taking part in plays. The greater number were reached in audiences, but each part was studied by several young people, so that in the case of a long run of a piece, the burden would not fall too heavily upon one cast.

The same methods which facilitate the smooth workings of a business enterprise have served here for the training and development of certain desirable qualities and characteristics.

Responsibility has been developed in many of the young people. They have learned to systematize the part of the work which falls to their share. Frequently when for some reason their absence is necessary or they wish to see a play from the front, the actors themselves train their substitutes for parts. They are made to feel that they must aim to make their substitutes outstrip their teachers.

This past winter a one-act play was staged by the young people themselves, and the instructor, seeing it for the first

time after it left class work, found few corrections to be made.

Punctuality is another trait which the theatre is claimed to have developed. In a neighborhood where, it is said, the meaning of the word was unknown, the curtain of the children's theatre has never in four years been rung up one minute late. Scene shifters have become so proficient in their work that one of the features of an invitation performance was an exhibition of their accomplishments in this line, the curtain being rung up for the purpose during an intermission.

Throughout there is a spirit of co-operation. Consideration of self must give way in making for a common ideal. The hero of one play is expected to take a subordinate part in the next, if occasion demands it.

It has been questioned whether the wearing of fine clothes necessitated by some parts might not make poor children discontented with their own, but this has been answered in the negative. It is claimed, moreover, that having to care for their stage costumes teaches the children to care for their own clothing. It is said, also, that new standards of taste in dress result. Miss Herts tells of a case where a number of little girls were to wear simple white dresses. Some of the parents of these children wished to dress them in their own cheap finery, but this was not allowed. So pleasing, however, was the effect of the costumes on the night of the performance, that later came requests to borrow these same dresses that the children might have their pictures taken in them.

The children learn, too, that some clothes are suitable for certain occasions only, and for certain situations in life. Wealth and rank tend to assume their proper proportions. It is the kind heart and feeling that is appreciated in the little prince, the little pauper, and in little Lord Fauntleroy under the change of circumstances which they experience.

The dressing-room is in charge of a little wardrobe mistress who rules her small domain with a firm hand, requiring method and order in all that comes under her supervision. When one sees this alert, bright-eyed little business woman, it is difficult to realize that when she came to the Children's Theatre she was, to quote one of the management, one of the "most wizened little creatures that ever was."

To further illustrate what the Children's Theatre has done for this same child when, a little ago some one of her family was seized with a severe illness, and other members of the household proved unequal to the emergency, this little girl showed such cool-headedness and capability that the physician in charge asked "What training has she had, to what is all this due?"

This is but one instance of many in which the training of

the Children's Theatre would seem to give self-reliance and poise—better fitting young people for life. Visitors to the theatre have been much impressed by the ease and grace of its young performers, and especially by their flexible English. Mrs. Burnett noticed it when she saw their presentation of "The Little Princess;" and Mark Twain, who has taken an active interest in the progress of the Children's Theatre, commented upon it. He is reported to have said "And now it seems that we Americans may learn to speak the English language from the East Side, nearly all of whose citizens came to this country unable to speak the tongue of which they so soon became master."

The Jews are said to be a polite people and all these children are Jews, but surely the noticeably good manners in some cases may be traced to the influence of the Children's Theatre. There is no other conclusion to be drawn when, for example, a small boy stands because Miss Herts is not seated and on having this commented upon, explains that in the play of Little Lord Fauntleroy he "noticed that the Earl of Dorincourt did." Changes of this nature, however, which impress outsiders, important though they are, seem less remarkable than those wrought upon character, to members of the management who have been witnesses of the process of transformation. To see shoulders straighten, erect carriage take the place of crooked shoulders and shambling gait; to see faces brightened by hopes, aspirations and interests hitherto undreamed of, is, it is claimed, to behold the work of the Children's Theatre. The transformations that some of the young girls have undergone were well illustrated when "Hop o' My Thumb" was put upon the boards there last season. For the parts of laundry girls, modulated voices, dignified carriage and the quiet manner that had been acquired were to be discarded; strident tones, loud laughter, tilted and protruding chins, hip and elbow movements were to be assumed. The girls were to copy, in short, something very like what for each one was near and personal history. For this very reason, it was with no small amount of apprehension on the part of the management that the play had been selected. Fear was entertained also as to the manner in which some scenes would be received by audiences, such, for example, as the one between Amanda and the hero of the drama. Instead, however, of a cheap interpretation of this young girl's attitude toward an ordinary trifler, the pathos of the situation seemed to be entered into and appreciated.

It has been asked whether the training of this theatre would turn young people to the professional stage. It does not aim to do this. Rather it gives an outlet to the adolescent desire

for dramatic expression, frequently disillusionizing the young aspirants for professional stage life, and without withdrawing them from their vocations, fitting them for better citizens. It is said that not more than one out of a hundred of them have real dramatic talent. Stress is laid upon hard work and careful study in the preparation of a play, to such an extent as might rob the stage of its attractiveness as an occupation for some young people who might otherwise have thought only of its glamour. This past year when Miss Herts's secretary, a young girl who had made a great success as heroine of one of the plays, was urged by managers to become a professional actress but she refused their offers and returned quickly to her typewriting.

It has also been asked what the effect might be of bringing young people of opposite sexes together at this exceedingly impressionable age for rehearsals and dramatic situations involved, but according to the management there have been no bad results from this.

The theatre has been run to some extent on professional lines and a certain amount of business training has been an incidental result. One of the boys has charge of the box office, and when hundreds of children are to be turned away—for there is never room for crowds that would see the play—must remain invincible to any plea of there being room, simply, for "just one more." An orchestra of boy musicians furnishes music between the acts, doing this in return for the instruction in music which they receive. The theatre, though run as far as possible on business principles, and, as has been said, to crowded houses, is nevertheless far from self-supporting. When one learns that the admission price is \$.10 this seems not surprising. Tickets at first were \$.05, and when afterwards the price was doubled, no difference in attendance could be noticed. The expenses, which far exceed receipts, have been borne so far by the Educational Alliance, and now when the theatre is to enter upon an existence of its own, this organization will still lend its help (this coming year at least) by having a series of plays presented in its auditorium for which a fixed sum will be paid.

Visitors to the theatre have been much impressed by the ease and grace of its young performers. This little theatre, which has done so much to brighten the lives of hundreds of children and young people of its locality, after a successful record of achievement covering the five years of its existence, is now about to enter upon a new and wider phase of activity. Up to the present time, after the manner of social settlements, it has reached a particular neighborhood, utilizing the dramatic instinct, but with even more system and regularity. It has

changed its locality and proposes to enlarge the scope of its work. A new feature has been added in that it proposes to demonstrate its methods by giving performances occasionally in other cities under the auspices of various associations interested in social education and advancement. It is too soon to prophesy what will be the actual results of this change of policy. It has now become a regular incorporated institution under the name of "The Children and Young People's Educational Theatre," with the following board of directors: Samuel L. Clemens, Percy Stickney Grant, Alice Minnie Herts, Robert J. Collier, and with President G. Stanley Hall as one of the advisory committee. The theatre remains under the same management: Miss Minnie Herts, director, Mrs. Emma Sheridan Fry, dramatic director, Mr. Jacob Heniger, stage director.<sup>1</sup>

*Art Theatres.* This past year has seen the beginning of the realization of a project dear to the hearts of art lovers and public-minded citizens who would see the stage raised to what they consider its rightful dignity as an acknowledged educational force. For more than a decade the establishment of art theatres in our country as well as in England has been much under discussion, sides being taken as to the salutary effects which might result not only in the matter of elevating public taste and morals, but in helping also towards the establishment of a national drama.

About six years ago a tentative movement started in New York, men and women of the literary and theatrical world being interested in it. Mr. Heinrich Conried was prominent among them, and two years later, after he had become manager of the Metropolitan Opera Company, a number of the stockholders of that organization subscribed a large sum towards realizing the undertaking. Nothing definite came of this for a time, but an interval of two years having elapsed, plans for the theatre were again taken up and after these had undergone considerable change the "New Theatre Organizations" became a reality. Some of New York's wealthiest and best known citizens are back of the enterprise, headed by Mr. Charles T. Barney. Operations for the practical carrying out of plans on a large scale are already on the road to completion. The theatre is on Central Park West and is to have in connection with it a large library and training school.

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<sup>1</sup> Other children's theatres have been started in this country within the past decade: That by the Carnegie Lyceum in 1900, ran for a number of seasons, while a children's theatre in Boston ran for six months. Mr. Alexander H. Ford, in an article entitled "New England's Stage Children," mentions a children's theatre of Burlington, Vermont, which had a brief career and "others of our great country." None of them have ever become permanent institutions and they have differed in character and purpose from the one just described.

Not only classic plays but those of modern writers are to be given, translations as well as works of English and American authors finding place in its repertory.

The movement which has resulted in the starting this year of a Boston art-theatre, like that for the New York theatre, dates back several years and owes its inception to the time when three years ago a few of Boston's prominent and public-spirited men leased the Castle Square Theatre and in order to get experience in the practical running of a theatre before launching their enterprise operated it on business principles, Mr. Forens S. Deland acting as manager. The ordinary run of plays was given, except for a time when after the Twentieth Century Club of Boston had hired the theatre of its lessees for a series of Shakespearean plays at reduced prices, the work which this club had started was continued for a time, tickets being sold at reduced prices for the benefit of public school children. The new theatre is to be located on Boston's Back Bay.<sup>1</sup>

*Conclusions.* Although no positive conclusions can be drawn from a preliminary study, the following points may be indicated.

It will be conceded, perhaps, that the dramatic instinct normally present in children, is seeking gratification by theatre-going to an extent which makes it a matter for serious consideration on the part of educators.

While observation, investigations, and study show the prevalence of the theatre going habit, it has not yet been connected to any extent with backwardness or poor work of school children. Some correlation, however, between the frequenting of cheap shows and juvenile criminality, is suggested.

That much worthless material is offered theatre-goers is a fact few people will deny, plays which would come under the head of those that are uplifting or educational forming but a small proportion as compared with those of cheap sentimentality and of low cultural order besides those being distinctly immoral. Nevertheless a tendency toward improvement in certain classes of entertainment offered to the public has been noticed within the past few years, notably in the cleaner character of vaudeville shows and the marked change in moving picture exhibits.

Education seems to be slowly awakening to the importance of the question, not only recognizing its responsibility in theatre-goers of the future but realizing that the child's demand for emotional experience will seek satisfaction in what is harmful if unprovided with proper means for gratifying it.

Psychologists here and abroad recognize the fact that the

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<sup>1</sup> The subject of establishing a National Art-theatre in London, as a Shakespearean memorial, in 1916, is now under discussion.

theatre is performing a certain function even under present conditions in merely affording the child an outlet for emotional discharge.

Pedagogues are coming to understand more fully what an opportunity is presented for turning to account educationally the dramatic impulse and training it to the better development of the child's heart and mind.

Need of co-operation of school and theatre is shown in the comments and opinions of children brought out either by essays or examinations on what they have seen and enjoyed at the theatre—these affording evidence as to what conclusions and view points are to be expected when the taste of children is left unguided and their minds unprepared by intellectual and moral training for interpreting aright.

Efforts along old lines to improve conditions governing the status of drama and the theatre, have resulted this past year in the definite organization of two art-theatres, one in New York, the other in Boston.

Other constructive educational efforts of recent years may be noticed which are more in the nature of departures.

Dramatic work has been introduced into primary schools, and an increase in the amount and in some cases a change in the character of dramatic work in schools and colleges has been effected.

The Peoples Institute, the social settlement, dramatic clubs, and the Childrens Theatre illustrate other efforts in the line of definite constructive work, and point the way to similar experiments, or perhaps applications of the principle along different lines.

The German movement which is in closer connection with the school system than is anything of the kind in this country, seems to suggest further possibilities along this line of making dramatic art a moral and intellectual inspiration in the education of the child.

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## **"ELEMENTS OF STRENGTH AND WEAKNESS IN PHYSICAL EDUCATION AS TAUGHT IN COLLEGES"<sup>1</sup>**

**By G. STANLEY HALL.**

A sturdy boy, I knew well, who had won a few petty trophies at preparatory school, resolved on entering college to cut out athletics and go in for scholarship which had suffered from his sports. He was eighteen, weighed one hundred and two, and was a trifle over six feet tall, yet had won a pole vaulting contest and so was beset to enter the collegiates in this neglected exercise. He at first refused but was told that the honor of the institution was at stake and that it would be rank disloyalty to refuse. At the end of the freshman year, the result was two more trophies and two varicose legs, requiring two elastic stockings. The sophomore year he tried for the crew and also for the eleven and the nine, and fortunately failed to make either. Overworking in the gymnasium and doing the giant's swing one day he fell off the bar and double fractured his lower jaw, which was wired together and all the teeth saved. He was in the hospital four weeks taking all his nourishment through a straw. His mates consoled him by telling him that the form of his jaw and chin was improved by the operation, but he could not set it firmly enough to resist the coaxing of his athletic friends. Junior year he became a strong man and tied with another in the strength tests of the year in the New England colleges, but strained his heart, thereby was home six weeks, and fell back a year in his classes. When he graduated after five years, at the age of twenty-three, he had three so-called silver cups, five medals, several ribbons representing several first, second, and thirds, in things, two enlarged calves, one improved jaw, and an irritable heart. He took up the study of medicine and when I asked him why, he said with a faint, sad smile, "Well, it may at least be handy to be able to practice on myself, or," he added, after a pause, "possibly my children, if I ever have any, will need my services."

I. His parents were powerless against the claims of duty to win glory for his Alma Mater, and I will not attempt to describe their feelings toward the system. This, I grant, is an extreme case, but I know many others, and you trainers

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<sup>1</sup> Address delivered before the Dept. of Physical Education, N. E. A., Cleveland, 1908.

and heads of gymnasia probably know many more where grave injury has resulted from the very pressure put upon the one-tenth or less of immature collegians who have to uphold the athletic prowess of their institutions. Many, like this husky chap, are too young to bear the excessive strain of the teams. The glory of possible victory and the stimulus of cheering thousands on the bleachers is too tonic a stimulus. You may talk all you will and keep ever so close tab upon heart, lungs, and guard against rupture, strain, and cite ever so many cases of college champions who have escaped unscathed, but there is a darker side to the picture and this is the first element of weakness that I urge. Neither art from the Laocoön down nor the illustrated studies of the physiognomy of the emotions afford any such facial expressions of physical agony as photographs depict in the faces of athletes in the climax of their efforts, and the nerves and muscles of collegians are not ripe for the strain too often put upon them. The training of these men is physical cramp and the reactions from the training table and the severity of preparation are dangerous to the physique and to morals. Only those by nature beefy can come out scathless, and even Schweinfurths are sometimes coarsened; while to become wonted to the intoxication of victory makes life seem for a season afterwards dull and zestless by contrast, especially in the American air and with American nerves, both so unlike the English or German. Do these few men get the most and best out of four academic years on the whole? I do not think so and I could take the rest of my time telling how heartily some of the parents of these lads agree with me. That there are great and offsetting advantages to some of these defects, we all know by heart. And it is these the public and such meetings as this always hears most of, but there is an athletic madness and it is for the silent over-specialized victims who suffer from the system that I now speak.

II. Athletics and physical training should be a school of honor, not of dishonor. Which is it to-day? The latter seeks to win at any price; the former was illustrated by the oft-quoted English tennis champion in an international rubber game, who, when his antagonist slipped and made a fluke which would have lost him the victory, made one himself on purpose to offset it, preferring to lose honorably rather than to win on an accident. The history of physical culture from the Greeks down shows that in its best periods, it has been animated by the ideal of making men gentle. The true sportsman would infinitely prefer to be beaten than to win unfairly or by any trick or cheating. Codes of honor differ, but the spirit of all rules of all games is to so play that the intrinsically

best man or team shall win. Honor should be the very religion of the gymnasium and the athletic field. The best definition of it I know is that it is an instinct for ideal conduct. It would, first of all, be magnanimous to a foe whether in victory or defeat. It is not to be too shrill or strident about technicalities and never to claim or accept a victory upon these alone. To my mind, faculty committees are as much justified in requiring a somewhat higher standard of conduct in the members of their teams than for others, as are trainers in requiring a better regimen and diet, and should disqualify for any sign of sneaking meanness. These men must be true representatives of the spirit of the college and it deserves to lose if any kind of favoritism of family or money put any but the best man forward, and these men must not break moral training. For the president of a great university to have insisted upon this the other day against the president of the nation was the most wholesome illustration of this principle we have had for years, and its effects will be salutary and long. Perhaps there is no greater hero worship in the world to-day than that of the rank and file collegians for their successful champions, and therefore it is of vital consequence, ideal as this may seem, that they should be, so far as possible, heroes of virtue and character. If they are dissolute, great is their influence for bad.

Do you ask for the ultimate reason why the college athlete should be a gentleman or high priest of honor? I reply that, apart from the fact that his example is so potent so that if he can be bad and win, all arguments of the classroom for the healthfulness of virtue fail for his mates and admirers, the muscles are the organs of the will and heart, which are the chief parts of the soul. Their culture closes the gap between knowing and doing. To keep them toned and tense means to make conduct follow more closely upon instinct and motive. Mien, pose, and gesture lay upon the soul more and make acting a part harder. The inmost nature is better known and ready for life, is more demonstrative, and conduct is a larger part of expression and quiet thought, example more than precept, and even the bad is less easily concealed or repressed, because the whole diathesis is more motor than noetic. Psychic tendencies are more revealed and in the open, and the motor type of man is more likely what he seems than to seem to be what he really is. For this reason there is more necessity for the motor minded to be decent in order to seem so, because with them evil, if it exists, tends more to come out. Like muscular Christianity, muscular virtue is more overt and even aggressive. That is why this type of man has always best exemplified honor and why, when muscles decay, vice is more

liable because it becomes more hidden. It is this harmony of mind and body, extending to the minor morals of manners and deportment, to all good hygiene and body-keeping, that physical exercise should develop. The true sportsman would rather be a Lipton, always beaten and always a gentleman, than to be always successful with the traits of some of his victors, for his conduct under every defeat has raised him a notch in the affections and esteem of two countries.

III. Physical is for the sake of mental and moral culture and not an end in itself. It is to make the intellect, feelings and will more vigorous, sane, supple, and resourceful. It should make for control and keep the body under and make it a servant and not a master. This it will never be until gymnastics is a department with its own courses, marks and credits, the same as other departments. If a man is a born athlete, why deny him the same benefit of it as if he is a born mathematician, linguist, artist or musician? It is plain that the academic side here must be developed. The culture history of physical education is a splendid field that we should develop in the classroom; not merely the ordinary rudiments of anatomy and physiology, but the great movements of ascetic contempt and neglect of the body, along with the splendid periods of its development in the palaestra and the *Turnfest*, the best age of which in both should in Germany precede by about a generation their golden age of arms, letters, and science. To always keep at the very top of one's condition requires both science and art; history and biography are rich in inspiring examples and in awful warnings. These must be collected and curriculized that these professors in the future may have both brain and brawn, be virile and virtuous in the grand old Latin sense of these terms. Practical ethics of body and soul is the core of all. The history and psychic physiology of military drill, dancing, the great national sports and games and their effects, the morals of measurements and tests, the psychology of periodic stripping and inspection, the relation of maximal effort to sex, drink and in a clumsy three words—the psychologizing, ethicizing, and æstheticizing of athleticism is now its crying need. The ordinary medical side is not enough. Moral prophylaxis should be included. The love of plain living, of nature afield, should be inculcated, something should be taught of the very interesting and suggestive topics of staleness, second breath, rhythm, stages of development, nervousness of the strong, the philosophy of training and reactions, the need of symmetry, and the dangers of specialization, the psychic characteristics developed by addiction to each of the chief forms of sport, that is, how the swimmer, boxer, runner, dancer, and the rest come to differ in character—these topics have

now a meaty literature that should be brought together here. In this direction we are to-day like Bunyan's man with a muck rake, all unaware of the golden crown just above his head which he would wear upon it would he but straighten up. Now this high story of culture in this field is, save for a few happy and scattered beginnings, all undeveloped. When we have realized what is the matter here, we shall look back with poignant self-pity upon the present stage of materialistic beginnings. The Y. M. C. A. teachers of athletics have shown us how heart, muscle and moral culture can be combined to the great benefit of each, and how worse than useless is strength of brawn and weakness of character, but the best is yet to come. Nothing could do so much to enlist the rank and file of students, the mere rooters and also the grinds, in body culture as such courses; for who could take them, if they began to utilize the resources available, without being inspired to make his own body stronger and his health better, to make the most and best of his physique as the best of methods of attaining any and every kind of excellence and power? Our colleges and universities must offer courses in which they can give degrees, even the highest, with this as a major subject. Every really scientific study which any of you make, whether in the historical aspects and phases of the subject or of the results of training on individuals or groups, the effects of age, temperament, diets, like the memorable New Haven studies, the, just now so much needed, studies of girls, make contributions to such a course. Could a few of the most scholarly and scientific men in this field now organize and compile from the many now scattered sources the material needed and take the epoch-making step of organizing it into meaty academic form, the problem would be solved. No one has done this and, until it is done, your best efforts are scrappy and incoherent. Is it not in fact your fault that such chairs and degree-earning courses are not sufficiently recognized by college dons and is it not up to you to remove the cause of your complaint in this direction, when by combining your efforts you could create a group of courses which every college would feel guilty and ashamed not to give.

The athletic problem is becoming graver every year and only you can solve it. We heads of institutions cannot launch new courses on a mere librarian's bibliography of good but scattered references. So, again I say, get together and put together what is already accessible in a scholarly way and we shall all fall over each other to give it credits and academic standing. I wonder if there was ever in the whole history of higher education such a wealth of material so wanted but so unorganized, or any field where some learned and vigorous

thinker, by a year or two of hard work, could so change the aspect of things? Physical training should be the very corner-stone of every sound educational system. Our college presidents and faculties are now pathetically helpless before the athletic problem, distracted and utterly powerless to control or utilize the tremendous energy now set free. These convulsive conclusions of the entire body academic are parturient struggles. A little skillful midwifery that can bring all this blind aesthetic enthusiasm to the birth into the higher cultural field—this is the need of the hour. In it lies concealed immense wealth of motivation to study hard and long a range of topics the most vital for personal and natural health and well-being. Nor has there ever been so large an opportunity or so loud a call. Hippocrates said "God-like is the doctor who is also a philosopher." We might almost apply the same superlative epithet to a gymnasial expert who can also be a philosopher. Will this physical Messiah appear or must the work be done by many laboring slowly for half a generation? Sometimes the call creates the man, but such a call is always answered sooner or later; and with all the splendid fore-studies you have already made, it cannot now be long delayed. And of all the great departments of this great association, yours seems to me surest ere long to see the great light or to have a great leader that will bring, inaugurate, this higher, more intellectual, phase of physical education. What I have to say on the other half of my subject, elements of strength, is summed up in a single sentence—that you have prepared the way for such a consummation.

## RECENT ADVANCES IN CHILD STUDY<sup>1</sup>

By G. STANLEY HALL

From modest and rather feeble beginnings a score of years ago, child study in its larger ranges occupies to-day the very centre of the stage in both the theory and the practice of education. It is not too much to say that now he or she who commands its resources commands the chief attention when they speak or write, and usually says the decisive word when most great vital problems are discussed. From the first, it has been largely, though by no means entirely, an American project. As it has spread to every civilized country, and as academic chairs, journals, and truly scientific literature devoted to it have increased, as its methods, at first severely assailed, have grown complex and logical and its chief results have been everywhere accepted, the voice of criticism has been silenced on the part of all who know it. Only a very few of the older leaders and some who manage this greatest of all associations of teachers in the world hold aloof and strive to maintain an attitude of detachment from it. But it has won at least the good-will of all the younger and progressive minds in the pedagogical fields; so that the future is now secured and we can see already the signs of a new danger, viz., that the results of child study will be accepted prematurely and uncritically.

Like the revolution of Copernicus, so a geo-centric and a helio-centric view of the old child study has made men realize, as it had sadly come to need to realize, that the school is for the child, and not the child for the school, and that everything from kindergarten to university must be plastic and subordinated to the nature and needs of childhood and youth.

Is it a question of hygiene, either general or special, of eyes, ears, nose, teeth, exercise, play-grounds, athletics, food, seats, light, heating, methods or matter of each topic in the curriculum, the best time of day and the best season for studying different topics, the recess question, juvenile crime, moral, industrial, æsthetic education, dancing, games, drawing, promotions, elimination up the grade, feminization, form of type and printed page of text-book, interest in culture stages, or even the larger question of race suicide or the supply of children,

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Address delivered before the Dept. of Child Study, N. E. A., Cleveland, 1908.

nursing, milk supply, defectives—it is in the bibliography of child study that the pedagogic world, even in remote, colonial lands, seeks guidance, information and solution. Few really scholarly papers that have attracted general attention or exerted wide influence within the last few years have not been for the most part, consciously or unconsciously, based upon genetic data, that is, upon the empirical studies of childhood. The influence of this work is profoundly felt in several departments of medicine, particularly in the milder and contagious diseases of children and in the forms of adolescent perversion. Some medical schools are even beginning to offer courses for the training of school physicians. This work is slowly revolutionizing the methods of religious training of the young in the various Sunday Schools. Juvenile crime is now a specialty, and its library is the literature of child study. Philology has found in the study of the language of children a field fertile with new problems. And even the study of the human soul in the college and university is being slowly revolutionized. Genetic knowledge is the most perfect type of knowledge, and the best and only scientific definition of anything is a full description of its stages of growth. Insightful and ambitious students of education are now everywhere demanding this knowledge, as the best investment of time and money, to equip themselves for educational leadership.

It is the only science that teachers, by furnishing data, have materially contributed to create and advance. Thus it is in good part your work and you can do yet more for it if you will, for it was never advancing so fast as now. Careful laboratory work now summarized by Judd and especially by Huey has placed the question of text-book type and length of line on a scientific basis, with great economy for eyes, space, and cost. Lay, Meumann, Dewey, and Phillips have solved problems of elementary number-work and taken them out of the field of non-expert discussion. Stern and his school have formulated the norms of error and success in observational and object-lesson work. Thus to a dozen special studies, age curves for the reading interests of boys and girls are now plotted. Starbuck, Leuba, Dawson and others have established important laws for the religious interests and capacities of the young. The manifold and profound changes of adolescence are now, to some extent, an open book to those who wish to read them ; and Crampton's new norms of psychological age have far-reaching practical application in grading. Even the methods of history and geography are beginning to appear. The problem of measuring general ability, baffling as it is, already reveals at least some of its dimensions. In drawing, the way is pointed out very clearly, and where antiquated systems were not too formally

intrenched has wrought a wondrous change ; and the same is true of school music. In normal education, perhaps the greatest and most important of all pedagogic questions, we see the way and lack only the courage to walk in it. We have formulated the rationale of plays and games, and new methods are already being put into operation in the great play-ground movement. Hodge in Nature Study and Jewell in Juvenile Agricultural Education have blazed a well-graded pathway. Tanner, Kirkpatrick, Swift, O'Shea and others have written texts that should be in every thoughtful teacher's hands. The founder of the juvenile court tells me that our library has been the lamp of his feet. The dancing movement from the kindergarten to the university gymnasium is based on genetic principles and so is the children's theatre, which is only the crest of the great dramatic wave now advancing over the world ; and the story-tellers' league, with five thousand members in most cities, looks to child study for its justification. The work of the society for moral prophylaxis, which seeks to prevent vice among the young and which was represented by the significant congress of Mannheim, the proceedings of which have recently appeared, rests on special, statistical studies of young men by Cohn and others, as to the prevalence of vice and venereal disease. In English and language work, our norms are well defined, though as yet but little operative; in high school physics, the last three text-books mark distinct new departure against the excessive, mathematical tendency that has steadily reduced the percentage taking this study during the last ten years. In the blind and calamitous high school Latin cult, the faint beginnings of reaction to normality that reserves Latin for those who can go far enough to profit by it are discernible. English literature is still haggling by philology, in order to universitize high schools and colleges. In the training of Indians and Filipinos, we can point to the new pedagogy suggested by Coffin's study of the indigenous education of the lower races. In the feminization problem, child study can only show what might, could, would, or should be done, but reform is yet impracticable ; while in the vast and impending question of industrial education, we can only show a few preliminary studies on child labor, etc. Here we are, so far, as powerless to suggest adequate steps to be taken, as are all the others. In the training of blind, deaf, and sub-normals, we have clear and consistent policies, methods, etc.

But child study is vaster than all these applications to pedagogy. Teachers as such see but a small part of its field. And even those who give their time to it now have to specialize in some portion of this large domain. Best of all, perhaps, we are working out the answer to the great question "What is a

Child?" We know that he is neither the congenitally depraved being Calvin thought, nor a Wordsworthian little deity trailing clouds of glory direct from heaven, all pure and good. We know that children are not so desirable as to be wanted in unlimited numbers, even though they be the spawn of the families like the Jukes; nor are they to be especially prevented by mothers who prefer society to the nursery. The child is first of all a bunch of keys, large and small, capable of unlocking most of the secrets of the entire history of life; a few of the keys are lost, some distorted, some locks are rusty or not yet found; but for science, the child is geologic ages older than the man. Adult traits of body and soul are novelties lately added, new and less substantial stories built on ancient foundations. Hence, the child is not so much the father of man as is every remote, primitive ancestor. The human infant is a very unique specimen of human nature, a relic or memento of a past vastly older than recorded history. Under the guidance of Mother Nature, he is climbing daily, at first with almost break-neck speed, up the uncounted rungs of the evolutionary ladder, the bottom of which rests deep in the protoplasm of the primitive sea, while its top touches the superman that is to be so much nobler than we are to-day. Thus science looks with new awe and reverence upon this candidate for humanity. The infant inherits not only scores of organs but as many instincts and feelings from a past older than man. It does or tries to do a little of about everything that all the creatures in its line of descent did. This is the scientific side of child study.

Third, it has certain general, practical lessons. It teaches that it is the duty of every healthful man and woman, with no special impediments, to marry and bear children and that betimes; that this is a duty that we owe the world and society, which is quite as imperative upon all those who are fit as it is to vote, pay taxes, or fight if our country is in danger. Biologically, the chief end of man is to transmit the sacred torch of heredity, undimmed, to the future. Nothing is so worthy of love and reverence and service as the bodies and souls of the children who will people the earth when the fifteen hundred million people now living, who are but a mere handful compared to those who are to spring from their loins, are dead. Again, we must everywhere study nature and get out of her way: take crying, it is about the only vigorous exercise possible to the child who cannot yet walk. It irrigates the whole body with blood, expands arteries, veins, heart and lungs, develops the voice, helps digestion, polarizes the soul between pleasure and pain, and has its own physiology, psychology and hygiene. Once more, nearly half the infants in this country do not creep

naturally. They roll, hitch, and suffer many abnormalities from premature uprightness. Creeping is necessary to bring out the chest, throw back the shoulders, strengthen the larger muscles of the back and neck which hold up the head, to develop the arms, shoulders, hips, to put the digestive organs in their proper relations at that age. Again, nursing at the mother's breast is indispensable even as an exercise for the lips, throat, palate, tongue and fauces, all of which suffer arrest or perversion by the easy method of the bottle. Mother's milk contains everything which soul and body need for the first months, and neither cow's milk nor any prepared foods can take its place. Statistics from many lands show that infant mortality, which is increasing everywhere, is from four to six times as great among babes under one year of age artificially fed, as among those breast fed. Röses's statistics show that the breast fed child is heavier, taller, at every stage of life, lives longer, has better teeth, and that every three months of natural feeding adds immeasurably to all these quantities. Thus in Germany it is proposed to fine all mothers who can but will not nurse their offspring, up to five hundred Marks. The stature of the French soldiers has also been reduced from this cause, so that a witty writer represents La Grande Nation as saying, "Suffer little children to come unto me and forbid them not for of such is the army of France." But there is time for only the merest glance at these vast themes. The world is going to think more deeply and speak more plainly upon problems that affect the future of the race. The child is the consummate flower of the cosmic process. Its quality is the best test of fatherhood and motherhood, for those are the best men and women who can produce and bring to fullest maturity of body and soul the most and best children. It is weakness to evade and folly to dispute this conclusion. It is the nucleus of the newest, highest, richest philosophy of life. The child is not a man or woman of reduced dimensions of body and soul, but is as a grub is to a butterfly, or an egg to a bird. Their prime need is to develop to the uttermost each of the stages through which they pass, and to be retarded more than accelerated; to linger in the paradise of the recapitulatory stages is the new ideal of liberal humanistic culture, which is that each should experience all the essentials that the race has experienced in its long pilgrimage upward.

## THE PSYCHOLOGY OF MUSIC AND THE LIGHT IT THROWS UPON MUSICAL EDUCATION

By G. STANLEY HALL<sup>1</sup>

Thought and reason and their vehicle, speech, are all three of them novelties in the natural development history of the soul. In the dim past, psychic life was very different from what it is now; feeling, instinct, and impulse were all, and they were common to the whole race, while intellect not only came late but was largely an individual product, causing people to differ from each other and stand out from the species. It is of this older, larger, deeper, and more generous soul of man that music is the best and truest of all expressions, especially if with singing we consider gesture, mimesis, and dramatic action which arose with it. Music is the speech of this antique, half-buried racial soul. It did not evolve from love calls or charms alone, as Darwin thought; nor did it first appear as a tone-colored accompaniment to speech, as Spencer's broader theology taught, for it is older than language, as Weismann, Boas, and Gaultmann have shown; while capacity for musical culture is latent in many primitive races. Birds, which evolved long before man appeared on earth, practised this art, and so did animals and even insects, the very first of all creatures to emerge from the primeval sea. Indeed, if we stretch the term to its very uttermost and make music include all acoustic expressions, the wind, rain, thunder, sea, are the oldest of all musicians, for trees and brooks came later after the land appeared.

If we abandon ourselves to the very madness of mysticism, we may say that vibrations and impacts are as old as matter, heat, light, or even atoms and electrons. Probably all energy is rhythmic and cadenced, so that in this sense the music of the spheres which Plato thought the sweetest and most symphonic of all, even though we cannot hear it, is no longer myth but science. To all these influences, protoplasm, which is the sugared-off, vital product of all the cosmic elements and processes, responded from the first, for it is the material soul of the all. This pristine rapport was closer and more all-sided before a special sense was developed for it. Thus, though man has lost many of the old and subtler

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<sup>1</sup>Address delivered before the Dept. of Musical Education, N. E. A., Cleveland, 1908.

responses and perhaps has shed a whole series of ascending rudimentary organs after them, the human ear is the result of a longer development process, which has made it the highest, and is the most specialized organ of response to vibrations. But the influence of all these buried reactions still whispers among man's central neurons ; and in his appreciations of pure music, reverberations are still awakened of the immemorial past when his personality was not yet so sphered out of the specialized in the cosmic one and all. Thus in music man may to-day dimly revive the most ancient elements and experiences in the history of his soul. If heredity is cell memory, the æsthetic reponse to music is the awakening of echoes far older than the earliest acoustic organs ; and in this process, man remembers the earliest as well as also the subsequent stages of his evolution. It is the art of arts because most pre-humanistic and also most prophetic of the superman that is to be.

It is this aspect of this sovereign art that justified, if anything can do so, the enthusiastic characterizations of it by writers like Marlo Pilo<sup>1</sup> that it utters the essence of things, best explains the world, is the chief interpreter of religion, that it propounds and answers the ultimate problems of life, or gives at least a mystic meaning to Schopenhauer's phrases, that it is the last word of the highest philosophy, that it is the revealer of ultimate metaphysical being of the will and soul. Only from some such viewpoint can we see light in the utterances of German æstheticians who say that music expresses all the cosmic emotions, utters every potential as well as every actual feeling, that its kingdom is not of this present but also of the future world, and that it should be because it strikes its roots deepest into the past and most securely shapes the future so that its home is in the infinite, that it shows everything under the form of eternity, that it utters all longings, even the dimmest, puts us into rapport with stars, sea and dreams, draws the ideal down from its fatherland in heaven, if, indeed, it be not the very essence of God himself.

But our problem to-day of the pedagogy and psychology of music is a practical one and can go back but a very little way toward such putative origins. Among children and savages, music has several distinct beginnings.

I. Rhythm is the first aspect which is so emphasized in all the primitive music, which seems to have a tum tum origin. Its chief features are repetitions and cadences. It is a system of beats, accents, stresses, time keepings, and markings, stepping, patting, tapping, striking, measuring arsis and thesis with the

<sup>1</sup>Psychologie der Music, Leipzig, 1906. 225 p. Tr. by C. D. Pflaum.

feet. At first there is little content and little variety, but repetition exasperatingly monotonous to cultured nerves. A savage band is made up of drums, at first untuned, and if there is a choir, it repeats phrases and words endlessly. The child which begins by rhythmically striking one object with another or by keeping tab of sequent impressions on tallies in a series of light objects when getting ready to count, hums or verbalizes a measure over and over, perhaps slowly evolving and intricating it, or learns to beat time, march, sway or gesture, has begun to ascend the long way by which the race began its musical development. This stage needs great and early emphasis ; although on the other hand, it may become excessive and neurotic as is seen in the counters and beaters. Poetry is older than prose and everything possible in the kindergarten and primary grade should take rhythmic character. A cardinal trait of music at this stage is, therefore, that it should be marchy, dancy, motor, for it must get into the muscles. While the child may hear other music, it should attend chiefly to this kind. To exercise together without music is the ghastly mistake of Swedish gymnastics, which sins against both motor and musical development. Music should go with steps and steps with music. The young person who cannot dance is crippled in his appreciation of a certain large class of music. There are those who interpret almost all kinds of music in terms of motion, supplementing real by imaginary movements. The sentence, sense of power, all periodicity and style in speech, grace, ease and freedom, which are the poetry of movement, find here their chief source. To sit still and listen to stirring music stunts a musical development in a young child in its very bud, for it feels music chiefly as incitement to action. There have been great and precocious musical geniuses that have shot up through this stage so rapidly that it was little seen, but it is integral in normal, musical development, and the born teacher of the art best knows how to draw upon and utilize this immense reservoir of motor tendency.

2. The child best worth educating musically responds deeply and early, even if unconsciously, to the sound in nature, the first music master of the race. The soughing of the wind through the pines stands out uniquely in its effect upon the sensible soul of childhood. It may even cause tears without consciousness, for it plays upon the very organism. It is felt in most as sadness and restlessness, while the susur-rus of the breezes among the leaves of deciduous trees is early pleasing and exhilarating. The wind is a band-master, loved or feared, according to the loudness with which his orchestra plays. The rattle of the hail, the drip and patter of rain, the silent fall of snow, the roll of distant and the crash

of near thunder, the ripple of streamlets, the roar of waterfalls, the beating of waves, and all the many voices of water are great music teachers. Then, too, there are the symphonies of bees, crickets, and even mosquitoes, the humming, droning, booming buzz of larger insects, the piping of tree toads and frogs, even the cries of the *feles et canes*, each has a varied tone language of its own to the young. The bleating of sheep, the lowing of herds which give pastoral moods, the call of the wild and the cry of the squirrel kind. Above all, the birds, the lonely hoot of the owl, the despairing cry of the loon, the caw of crow and daw, the scream of the eagle and hawk, the clapper of the heron, the cooing of the doves and, above all, the song of the warblers which one observer says never sing but only laugh out of a heart overflowing with joy; each one of these sounds and many more carried with it a whole stage setting of psychic moods; and these the tone poet simply must feel abundantly, often and early. Living creatures do not talk to each other for they have no vocabulary of words, but their utterances are all of them either love-calls, warnings, danger signals, and are more musical than verbal. Some are lullabies, others madrigals, or philippics or notes of defiance, or murmurs of parents to their young, and some are voices of the day, others of the night or storm. They suggest the heath, the prairie, moreland, thicket, mountain, meadow, brook, the spring when the migrators come, and the fall when they go. These are the things that have played on the soul through all the immemorial past, have controlled its moods, and have still a strange power to call up imagery. Snatches of these field antiphones are, what many careful experiments show, that music suggests to all responsive souls. It is these influences that should not be evicted by the music stultifying noises of the city, which cause it to focus on erratic, even decadently erratic, themes. So far as music is an interpreter of nature, the child must have heard, felt, varied influences, or else musical training leaves him untouched, because there is nothing in his soul to interpret.

3. Song is story, and to the child is the nourishing root of all musical culture. A musician who never sang or at least hummed to himself or herself can never possibly feel the full power of instrumentation. He must at least hear song in his throat or something vital is lacking. Song, too, must have a burden, and programless music comes later. The dark bard is inspired by his theme and pours forth unpremeditated song, because he is drunk with his theme, and therefore carries his hearers away. So the great lyrists from the restored Apollo to the gypsy fiddler of to-day in his own habitat play music that to them is crammed full of meaning and content deeper

than words and with which they weave their spell. Hence, too, the musician must know the great tales of time and men and be inspired by them, so that he can learn to let himself go with abandon; and his powers of sympathy must be utterly untainted by criticism. Story roots of love stronger than death, a vengeance where man is a powerless agent of the Fates, of piety and devotion that immolate self for something greater than self; among these the composer finds his Muse. Hence, the pepil must know and feel the great mythopoetic cycles, especially those of the ancient Greeks, Homer and the dramatists and the Germans, the Saxon *Arthuriad*, the *Niebelungen* and the rest. All such legendary and heroic lore cannot be properly told save in poetry and music to which they incline and inspire the soul. Thus literature of this class should be the hand-maiden of art. Above all, Biblical literature and the religious instinct should be cultivated. So, too, patriotism and the flag and the great historic events and golden deeds of virtue, home, native land, country, and religion are the great themes in all the consensus of children's preferences in music. Love comes later and comedy and parody are still later and far less.

4. As to instrumentation, wind instruments that are blown come nearest the heart. The pipe was first after the drum, and to play these is singing with a proxy larynx, while breath and feeling are ordinarily very closely akin. Thus even the young, even near the age of self-consciousness and emotional repressions, can still express a sentiment naturally, and school bands are as hygienic for the feelings as they are for the lungs, and from Plato down all have praised martial strains of this kind for youth. But in soulfulness, we must agree with Gardiner<sup>1</sup> that the violin stands first, hard and late as it arose. Each string has its distinct character. It requires and trains great accuracy of ear and touch, and bowing is the best expression of music which the hand can make. Perhaps in nothing does it come so near being the direct organ of the heart. How the Hungarian fiddler in his home and native music hugs passionately, caresses his instrument, and gets, as Paganini did, the most sympathetic and tumultuous response that ever instrumentalist won from a crowd! The violin is the school instrument in Germany where most is done in music. The ready-made notes and tempered scale of the piano and organ are farther off and their technique is far less expressive of the musical theme. The mandolin is a tasteful decoration of bric-a-brac for a sophomore's room, but is it quite virile for the American man? It affords our stal-

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<sup>1</sup> *Nature of Music*, Boston, 1838, p. 505.

wart college barbarians in evening dress an opportunity to line up before the audience and strum accompaniments in three chords to the simple ditties carried by the more expert few. Or is not even the banjo less lady-like and evirating? I do not know; why do not you musicians tell us? Alas, the pedagogy of music is yet in its diaper and swaddling-clothes stage till we know more of the psychology of the chief classes of instruments, each of which does different things to the soul.

5. You music teachers should now keep closest tab on this new movement for children's theatres which promises great things in the near future. Music and drama are twin sisters and have grown up together in the closest dependence one upon the other. Mimesis, gesture, acting, are probably like music, older than speech itself. New studies show how most school children at some periods of their lives show a veritable passion for cheap shows, of which there are fifteen hundred of the nickel and dime order in New York alone. Their passion is to see and feel passion. They long to be thrilled, and their appetite for excitement is legitimate, for it must be had or the child is dwarfed; and we can do little to determine whether it shall be on a high or a low plane. In New York, censors inspect plays and those they find clean are open to scores of thousands of young people at reduced rates, and supplement their school history and literature and give moral uplift, draw off bad instincts, on the principals of katharsis, and perform future choices aright. Good operettas come in and music now needs and is just beginning to have pedagogic censorship by similar boards, which have growing power to determine success or failure or good and bad things upon the stage in our large cities.

6. Keep the technique duly subordinated—pray ponder this; is it not just as absurd to teach the children notes and the scale before they have learned a repertory of songs by rote, as it would be to teach reading before the child learns to talk? The prime end of musical education in the grades is to train the sentiments, to make children feel nature, religion, country, home, duty and all the rest, to guarantee sanity of heart out of which are the issues of life. To this, technique and everything else should be subordinated. Again, you must sing to the children if you can only croon or intone poetry. I would have a pianola in every high school and college with a few score of well chosen selections. In pubescence when the life of sentiment awakens, probably music has its very most potent influences in stirring and expanding the soul. Much school music is now chosen merely with reference to some scheme of pedagogic, systematic progression. Much method here is a sin against the holy ghost of music itself.

Every tune introduced should have a moral and æsthetic justification and should be admitted to the school canon only after careful deliberation and for good and sufficient reasons. And then and only then will music be rescued from its present abject subordination and given its rightful, commendable place in the curriculum, as the trainer of the feelings which are three-fourths of life.

7. And lastly, I wish music teachers would read a little more, and see their work in the larger light now dawning. They might at least know Pilo, Gardner, Wallace,<sup>1</sup> Wallaschek,<sup>2</sup> possibly even Guerney,<sup>3</sup> not to add Darwin, Spencer, and Weismann's dilettante and hypersubtle theorization. Then there is the second part of Helmholtz's masterpiece *On the Sensations of Tone*, which gives the history of music on a scientific basis. There are other works by Ritter, Paine, Henderson, Nerlich, Köstlin, Bartholomew, Stumpf, who thinks that purity of music and race type come together, that the male voice was once very high, and that woman first began to sing, and that use of practicality has caused the development of music. Then there are the simpler results of the study of children's choices, from discriminations of pitch, from their range of ear, their sense of timbre, the imagery that music excites, which Gilman and Downey have studied, and even the responses of infants to music; while Dr. Theodate Smith is preparing a work on the psychic reactions to sound by infants and children, and fuller studies are being made upon imitation.

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<sup>1</sup>*Threshold of Music*, London, 1903. 269 p.

<sup>2</sup>*Primitive Music*, London, 1893. 326 p.

<sup>3</sup>*The Power of Sound*, London, 1880. 559 p.

## HOW FAR ARE THE PRINCIPLES OF EDUCATION ALONG INDIGENOUS LINES APPLICABLE TO AMERICAN INDIANS?<sup>1</sup>

By G. STANLEY HALL

In both the government and mission schools of British South Africa, two methods are now in use; the oldest and most prevalent one is much as we teach Indians and Filipinos. The Bantu child right from the kraal is taught English from the start, and the ideal is to treat him in school as far as possible as if he were a white child, the course being about the same as for London children. The other, newer, method which, though advocated by Bishop Colenso, has only had a fair trial within the last ten years, is to educate the Kaffir child for the first few years in his own language, and only after the third, fourth or sixth year of school to entirely modulate over into English for the bright ones who go on so far. The vernacular is at the base and English at the top of the system. Elementary education must thus be conducted in the native tongue. It is a little something like this that I plead for in our Indian schools. In Africa, the difficulties and objections to this method are the same as with our Indians, but the first are being overcome and the last answered. One is that there are so many dialects that it is easier to bring all tribes over to our tongue than for our teachers to learn their own. Of course it is easier. This is in part an argument of laziness at the expense of the best interests of the child, but the best answer is that education should group children into cognate, linguistic stocks where this can be done, and that teachers must do as missionaries have always done—learn the native tongue. Some of these tongues have but a few thousand words in them and these fit precisely the child's stage of development.<sup>2</sup> Again it is objected that the native tongues are uncouth and incompetent; but it is the common testimony of those whites who have mastered them that they can preach better and indeed get far closer to the native soul than in English, and that nearly everything that the child can grasp up to ten or twelve years of age can be expressed in them. Again it is objected that they will and should die out, but those

<sup>1</sup> Address delivered before the Department of Indian Education, N. E. A., Cleveland, 1908.

<sup>2</sup> See Junod: Jour. of the African Society, October, 1905.

who know how persistent indigenous tongues like the Gaelic are, know that this is not true. They linger for centuries even in close contact with a so-called higher language. In some of the crudest of the Bantu tongues, e. g., the Tonga, the elements of nearly all the sciences save only chemistry and mathematics, which need technical terms, can and have been put in little encyclopaedias that bring the subject home to the mind and to the heart. These tribes have a rich collection of folk lore; and as this is of the vital sort that lives from mouth to ear and not of the bookish sort that goes from hand to eye, some of them are little masterpieces, and have a high degree of both literary and moral worth. Matters of kraal life must and should be dealt with in the language of the kraal; and the same is true of the wigwam. A new language cuts the child off in the most persistent period from the stock of inherited ideas. With the death of their tongue "something else will die out which can never be replaced." "The very thinking process is impaired, if not stopped." The mongrel English that results from this method is a kind of pigeon Kaffir with many English words. Yet they learn enough to come to look down upon themselves and their race and its possessions. The old way of Anglicizing everything from the start is called by Junod "a cleverly planned scheme to stamp out everything native." They are expatriated in their own home and despise their parents. It is simply amazing to see how much of very high value for practical and moral life there is in the customs and speech of aboriginal tribes; and if our schemes like Jesus' aimed "not to destroy but to fulfil," far better results would be achieved. True, many boys wish to learn English for the sake of its practical utilities to them, but this makes their intellectual processes superficial, and they become subtle parvenues, craven and servile, with the heart and soul gone out of them. At the very best, the system turns out only caricatures, or pinchbecked imitations of white men, profoundly dissatisfied and restless. They have lost their old anchorage and have not found a new one; and thus the worst result of the contact between higher and lower races is realized. Weismann, Boas, and many other anthropologists have shown that in native gifts, primitive people are hardly at all inferior to us; but it is just as essential that they should evolve along the lines of their own heredity and tradition as it is for us to do so.

Dudley Kidd<sup>1</sup> shows that the aboriginal Kaffir is a man, a gentleman, and a true sportsman, splendidly built, free, graceful in his movements, open in his manner, proud of his clan

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<sup>1</sup>Kaffir Socialism, London, 1908.

system, intelligent, social, kind-hearted. While the educated Europeanized Kaffir, in his second-hand clothes, is cringing, shoddy, and tawdry in his character, top-heavy with conceit. His modicum of civilization has injured him morally even more than it has benefitted him materially. We have not understood him, have broken up his customs and demolished his views of life, tried in twenty years to push him ahead six hundred. Flinders Petrie<sup>1</sup> pleads for a practical application of anthropology, and well may we ask why does not our Indian Bureau utilize the results of the Bureau of Ethnology, for no race has been more studied, is better understood, or ever has been worse treated than our Indians. Consider too, the, in many respects ideal, customs of the African Vei,<sup>2</sup> as explained by their Prince Momolu who, after long study of our civilization, prefers his own, which compares favorably with that of the Germans in the days of Tacitus, or the British under Alfred the Great. Buttikofer, Landor, Cator and many others have described so-called savage communities that in certain most vital respects put us to shame, while the blood and oppression of primitive races has long cried from the ground to heaven. Our education is too often slow, ethnic death for them.

The same is true in some degree of our industries which crush out native occupations. Why kill the clever Indian art of basketry, into which the squaw sometimes weaves her very life, by our cheap and clumsy raffia work? Why teach young braves to make and wear coarse cow-hide shoes, when their moccasins are far more hygienic and their construction far more educative, while like basketry the output has a higher market value? Why substitute the life of the barrack-like government schools for that which Sitkla Sa has described? Why fit the young Indian, in the language of one of them, to clean the spittoons of the white man's civilization instead of helping him to develop his own? Why not make him a good Indian rather than a cheap imitation of the white man? Why teach him our Sunday-School ditties, and let his marvellous, native music, which Miss Fletcher and Natalie Curtis have learned and taught us, and which is so unique and even sublime, be forgotten? Is a poor twentieth-century farmer or a reservation Indian better than a noble red-man of the stone age as an ideal to aim toward? But we need at least to learn what they have to teach us before it is all extinct. The original Indians of both North and South America have ever been called the most religious race on earth. A large volume of their prayers

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<sup>1</sup>Races and Civilization, Smithsonian Rept., 1895, p. 589.

<sup>2</sup>Century Magazine, 1904-5, p. 927.

on every occasion now in the press, shows this. Would Jesus himself have swept all of this away, or would he rather do for it what he did for the religion he found—elevate it, bring out the new from the old. Our missionary pedagogy is in its embryonic stage, and when it is unfolded, it will do for all faiths, high or low, what the Master strove to do for that of the Hebrews—evolve it into a higher dispensation and reveal what lay concealed in it.

Of course, conditions have changed: the buffalo is gone, the reservations are poor. We make it a crime for the Indian to leave his impoundment, we crop his hair, forbid the festivals and dances of his religion. I do not object to some of our industrial arts for him, but I plead for the pious conservatism of all that is good and that can be kept or restored of the old tribal life—its traditions, folk lore, arts, industries, and above all its free, manly spirit. To let these perish is a crime for which our codes have no penalty and our lexicon no name. It is the slaughter of the soul of a people, in this case probably the noblest of all races living in this stage of development. It is a crime even against the noble science of anthropology which still has so much to learn that is passing away so fast that perhaps the very best of it all is likely to elude us. Can we not somewhere gather the remnant and, if the government will not do it, will not some philanthropic millionaire help to bring together the best weavers, tanners, bow-makers, those expert in lore of the forest and animals, the bards, flint-chippers, artists, and the rest, and revive at least some of the best there is in tribalism, teaching the Indian to respect his own abilities, or at least let him teach us his arts before he perishes; or is it too late even for this? Has any one of them been so enamored of the Pale Face's works and ways, as some of us have been of theirs, and if not, why not? Is there no good Indian but one whose soul has been killed under our system? Is the ghost dance in which the living hold holy commune with the clouds of ancestors in the happy hunting-grounds still so dangerous that we must everywhere suppress this sacrament? Were the school Indians on the hill at the St. Louis Exposition really better men and women than their wilder congeners in the tents below? These are questions to which every one connected with the Indian Bureau or Schools has a glib and ready answer, to which every popular audience will approve, and even some Indians have been well coached in such answers. But there is a large and growing minority of intelligent men and women in this country who read all these reports and who are not satisfied but who want something better, different, and more indigenous, and who would

**ask the Indian Bureau why they make no use of the work of the Bureau of Ethnology, or if the results obtained by the latter have no educational value, whether they are really worth making—what other value have they that justify the labor and expense of making them?**

## THE CULTURE-VALUE OF MODERN AS CONTRASTED WITH THAT OF ANCIENT LANGUAGES<sup>1</sup>

By G. STANLEY HALL

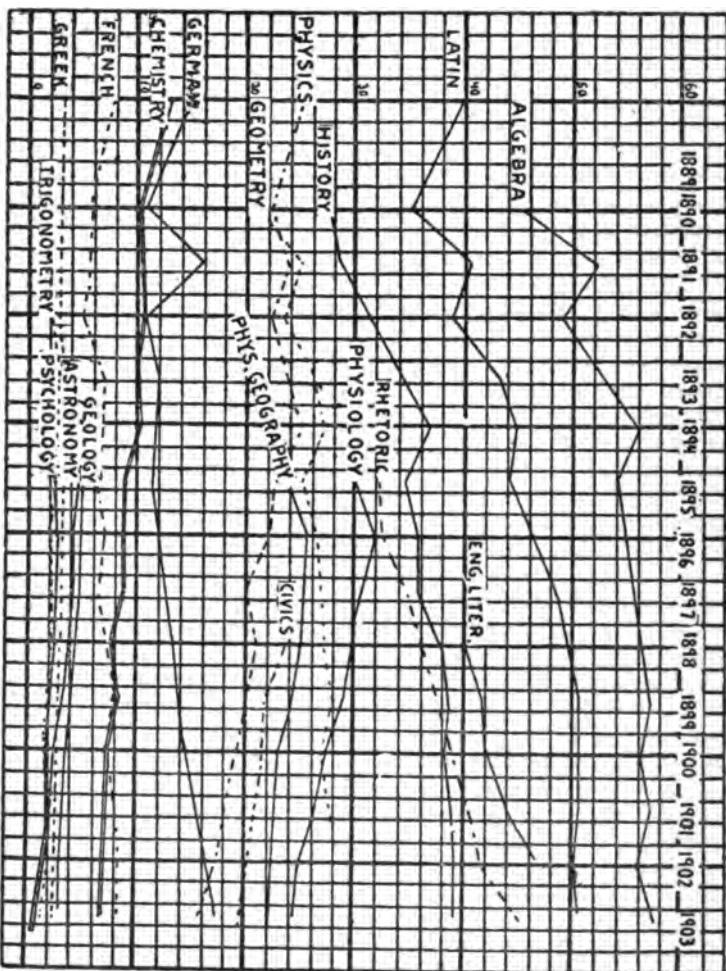
The accompanying table, compiled from the reports of the Bureau of Education since 1888, presents graphically the very pregnant tendencies in American public high schools attended by some 600,000 select youths and maidens, and may well be the point of departure for the following discussion. A few of its general lessons, however, may be described by way of introduction. One of the most general of these is that about every science has declined : physiology, which was largely a temperance study, has fallen off since 1896 from thirty-five to twenty-four per cent.; physics since 1904 has dropped more than four points, despite the fact that it has received more of the fostering care of both college and high-school teachers than any other subject; physical geography has dropped ; chemistry has fallen off so that now hardly more than seven per cent. are studying it in any given year ; astronomy and geology have declined ; algebra surpasses all other topics in the size of its classes, being studied by nearly three times as many as study geometry ; and history, although advancing, has been outstripped by English literature and by rhetoric ; Greek is slowly dwindling and is taken by only two or three per cent. ; while Latin some years ago crossed the fifty per cent. line, French has never reached ten per cent., and German, beginning at this point in 1890, has advanced to about eighteen per cent. These curves tell the story of the favored and disfavored topics, and the most comprehensive and the saddest lesson is that formal studies not only far exceed those that are contentful, but are rapidly gaining. What used to be called the humanistic studies now have nearly twice as many devotees as science. All these lessons it behooves us to lay to heart, and, having rightly interpreted the figures, to also seek to interpret their lessons.

It is, however, only of foreign languages that I write here.

A language expresses the life of a race, domestic, industrial, social, political, religious ; and so far as the life that once animated it is extinct or transformed, the language is dead. In this sense, the life is gone out of Latin. Not a human being

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<sup>1</sup>Reprinted by permission from the N. E. Magazine, Oct., 1907.





speaks it as a vernacular, or worships Jupiter, once supreme over gods and men. The old ways of war, labor, private and public life, are obsolete, and all this makes such a language, if not *vix et preteria nihil*, a little unreal and ghostly. The Latin tongue and race, ethnologists tell us, died a natural death from decrepitude, if not old age. Now, death is to make room for more and fuller life, and nature has submerged unnumbered other tongues and stirps without leaving a vestige or a name—all for the sake of the unborn. So of all the extinct animal species that far outnumbered those living, not one once dead was ever again evolved. Remarkable as has been the persistence of Latin, which the Church took from a dying state, and which scholars have explored from the Renaissance down to the archaeological resurrectionists with spade and pick, the product, precious as it is for culture history, is a little like the ghosts of folk-lore, anæmic, unsubstantial, with a voice lisping, hollow, or raucous with age. The red blood and green chlorophyll of meaning now have been more or less bleached out of it by time. In the cult of a language dead in this sense, form always has, does, will, must take precedence over content, and the choice between a dead and living language as an instrument of culture has many pregnant analogies which it would be interesting to trace out in detail, with the question whether a student of biology would learn most of life by studying paleontology or giving his attention to the fauna and flora of to-day. Happily for science, experts in fossils have been very judicious and temperate in their claims and more mindful of the larger interests of the whole biological field than are the classicists for the cause of language-study generally; for their claim of paramount culture-value has under changed conditions become a pedagogical anachronism. With a few distinguished and honorable exceptions, American Latinists are men of rather limited second-hand learning, with but few fruitful original achievements to their name, but are too largely a guild of text-book makers for the hordes of elementary Latin students in college and high school, and now even in grammar schools, who are urged on by teachers, parents, and traditions to sample a high culture for which Latin stands to their mind.

How different all this is when we turn to a living tongue! Here thing, fact, act, or, in a word, content and meaning, lead and words follow and serve; and form, instead of being supreme, is, as it should be, ancillary. Germany, France, Italy, and Spain palpitate with life. Their people are all about us. Contemporary, political, commercial, literary events and interests there touch us. There are no disputes as to how these nations pronounce their language. If we visit one of these

countries, a day's experience would give material for a small lexicon or book. There is a certain and legitimate charm, too, in contemporaneity, as is seen in the daily press. The art of conversation, too, which Lotze thought at its best the highest human felicity, is possible in a living tongue, and utilities of many kinds add their impulsion to speak or read it. At every stage of progress we are studying the physiology of living and not the anatomy of dead tissue. The mind is laden with impressions and experiences till we are impelled to put words to them, precisely as the child does and as the creators of language did, who had to evolve it because their mental content overflowed. The modernist does not have to begin with the *status vocis* of a word spoken or even printed, and then proceed to find a meaning with which to besoul it from the little known of antique life.

Apologists for the classics have often urged that the culture-value of a tongue is increased because it is dead. This argument played a rôle in the German discussion twelve years ago and is very prominent in the book of Bennett and Bristol.<sup>1</sup> The argument runs as follows: To reconstruct the life of a great or vanished race from words alone, to read and understand their records, to reproduce their states of mind in ourselves (which constitute all that now lives of ancient Greece and Rome), and to do this with none of the above aids which the teacher of the modern tongue can invoke, is almost a creative process which gives us a purely ideal mental product that lives, moves, and has its being in the imagination informed by memory and tempered by reason. One writer even adds that when England, France and Germany have gone the way of Greece and Rome, as they may some thousands of years hence, then their language and literature will acquire the same higher-culture power for our remote posterities who study them, that Latin and Greek now possess. If this is so, it follows that the far future fruits of our loins or the descendants of races now savage, when they have their innings and occupy the centre of the historic stage and wield the ever accumulating resources of civilization, will have a still larger repertory of instruments of culture than we now have, unless the later tongues depose the older and Greek and Latin fall back toward the place now occupied by the old Aryan and Acadian.

But let us look at this argument seriously. If the impoverishment of living content is desirable, why are the classicists so anxious to restore it by every device of maps, diagrams, photographs, casts, and why was, e.g., the St. Louis exhibit of

<sup>1</sup>Bennett, Charles E., and Bristol, George P.: *The Teaching of Latin and Greek in the Secondary School*. Longmans, Green & Co., New York, 1901.

models of Roman implements of many industries and illustrations of customs, dwellings, school, theatre, daily life, public and private, religion, etc., hailed as such a pedagogic triumph, when it only marked one step toward giving the work of the Latin teacher just the *realia* which constitute the great and ready aid of the teacher of living tongues? Who denies that this is good or that more would be better?—but these the modernist has.

But, further, the classicists' arguments have slight regard of the psycho-physiology of speech as lately revealed by the study of its diseases, which show that language which really lives and is normal, with ear and mouth its primary centres and with those of the eye that reads and the hand that writes accessory, also has multiform connection with the centres of all visual images, not those of words alone, and of all motor impulsion. A tongue that lives is first of all heard and spoken, and its foci are auditory and oral. If it is not spoken it thus lacks even linguistic actuality, and all that is bookish is two removes from life. But, more than this, the speech centres are connected with those of touch, of taste, smell, and with reflex and voluntary movements, and very closely with all the processes of thought, will and feeling, so that if any of these are impaired in the slightest degree the speech function suffers. Hence, language becomes a true organ of the soul just in proportion as we think, will, feel, sense, act, in it or make it the focus where all afferent processes converge and whence all efferent activities diverge. That these cerebral and psychic currents of life and mind are more vital, more numerous and more widely irradiated in a living than they can be in a defunct tongue is plain to every one familiar with the facts of the sensory and motor aphasias. The tailor who cannot say "shears," that farmer who has lost the words "corn," or "wheat," the shoemaker who cannot utter the word, "awl," the butcher who cannot say "meat,"—all these at once pronounce these words and others nearest their vocation if they see, taste, smell, or use the objects; and almost any form of presentation along these associative lines always tends to bring out the proper word, showing how one and inseparable in our psycho-neural constitution are speech and contact with real and present life, and how merely verbal and artificial a language can become, the content of which is found only in the remote past.

Thus the professors of Greek and Latin always tend to exalt form over content and substance. It would be interesting to trace what I believe are the remote results of this tendency in our language school books and in our rhetorics, the writer of one of which declares that it is not part of his busi-

ness to give students anything to say, despite the fact that their minds are prodigiously empty, but his function is to make their words and sentences, if they use any, proper, appropriate, and grammatical, or clear, concise and definite. This undue separation of form and content in the classroom depletes any subject of human interests, so that most of our Latin teachers are no longer humanists, but philologists, antiquarians, critics of texts, editors, authors of copious footnotes, verbalists, syntacticians, pedants of form, and too often negligent of the moral and literary content of even the authors they teach ; and these pedagogic errors copied from the university by the high school have brought about the extraordinary fact that while more secondary pupils in this country take Latin than any other topics, save algebra alone, more drop it soon and forget it more completely than is the case with any other topic. The vast majority of Latin students in this country to-day are high-school girls, and if my census of from four thousand to five thousand is typical, more boys drop Latin and also drop out of high school from this than is the case with any other subject ; while in colleges with electives boys are rapidly abandoning the study of ancient for that of modern tongues and sciences. If, indeed, the ideals of young men are the best materials for prophecy, college Latin will soon be left to girls, most of whom hope to teach it in the high school, or perhaps now, in New England, in the grammar school.

Another very important result of this meagreness of content in a dead language is that the novice lingers longer in the translation stage than he does in learning modern tongues. In the latter he can soon associate the word with the object, act, or quality directly, without the mediation of the vernacular, while in Latin or Greek the word must be translated into English and then given its meaning, so that here there is more word-matching, which is a very formal process, because language itself abstracted from meaning is the object of study. Indeed, this is now even set forth as the great advantage of a dead tongue. Latin, we are told, teaches more of English than the study of English itself, and Bennett goes so far as to urge that when the student is so proficient in Latin that he thinks in it without mentally translating, its culture-value declines ; or, in other words, the chief advantage comes in the earlier stages of study, and it is the secret of its pedagogic worth that this stage is prolonged.

Now I submit, if this were true, the ideal of Sturm, perhaps the Prince of all Latin teachers, of so training boys, that if they could be transported to ancient Rome they would feel more at home there than in Schul Pforta itself, was wrong, despite its magnificent results. He was jealous of the vernac-

ular and waged war upon it in every way that he could devise. He wanted none of this mediation and abhorred translation. Were this view sound, it would also follow that we must beware lest our classes in Latin advance too far, lest it cease to be ancillary or *ad maiorem gloriam Englica* and set up for itself a danger that need give us no present cause of great alarm. If this view be sound, the efforts above described to animate the speech of old Rome with copious illustrations from its life and to make all *anschaulich* are erroneous, because all such devices tend to bring life and eliminate the mediation of English. We should work with grammar, lexicon and text-book alone, and keep the walls of our classrooms bare of pictures ; but to do any or all of these things, is absurd.

What of the boasted effects of the classical tongues upon English in the callow stage of linguistic development in which most students of ancient languages are ? Some of you remember the curious pigeon or translation English of the Harvard examination papers which Charles Francis Adams reproduced in a pamphlet some years ago. From most of these sentences it seemed as though all idiomatic sense of the purity, propriety, and precision of which our rhetorics, fitter to make proof-readers than orators, prate so much, had been completely lost. The process of deterioration is easily understood. The boy selects one of the first of the meanings of each new word from his Latin-English dictionary, and arranges these, each with its proper termination for case, mode and tense, in the general order of his own tongue, and the version is made perhaps literally correct, but stylistically clumsy and grotesque. His effort to be faithful on the one hand to the original, and to be true to the genius of his own tongue on the other, ends in a compromise which makes his rich and cherishing mother tongue stepmotherly and the pupil a linguistic orphan or bastard. He may go on to develop a speech-consciousness which is oppressive and from which he hastens to escape, when class hour ends, into slang, which is now the *lingua franca* of the American adolescent boy and girl. This translation stage is a very critical period for linguistic development, beset with many and grave dangers, and it is one of the chief advantages of the modern languages that they shorten it and thus reduce these dangers and give two independent languages, and not a mongrel or cross-breed between two philological species ; and all hybrids are sterile.

But of course translation may be a high art. Long ago I spent a year with a philosophy class on Jowett's translation of Plato with what I thought fair results, but my colleague, a splendid Grecian, reproached me, saying that my work was not truly academic, that Plato could be understood only in

Greek, and he even intimated that it was almost a profanation on the part of the great master of Balliol and his pupil who worked at it many years to translate it at all. I know a Dante scholar who calls Longfellow's translation a well-meant vulgarization of "The Divina Commedia," and others who think the same of Palmer's *Odyssey* and of other great translations of masterpieces, and hold that a quintessential something with inconceivable culture-power, although too subtle for psychology to detect, is lost in these versions. This is often true, and if so, how great the value that is dissipated in school translations! On the other hand, such claims as the above are often pushed to the extent of academic affectation and caddishness. Did not King James's corps of scholars translate the very saving soul of Scriptures into English, and Fitzgerald that of Omar Khayyam? Indeed, it is said of both these and others that their content was better when rendered into English than it was in the original, because it found in our tongue a better organ. I think that the pedagogy of the future will begin the study of all great masterpieces in other tongues, ancient and modern, with that of great versions in the vernacular, if they exist. Every real translator must first make the original tongue a second vernacular and truly read it, which consists of taking in all the author's meaning unchanged, and thus attaining his standpoint and partaking somewhat of his genius. Only when he has done this can he transport and re-create the content and make it speak equally well and possibly better than its original tongue. Many, if not most, of the great ancient classics are now monuments of English literature and should be read and rated as English classics. Now this art of many arts, translation, the tyros can only parody, and their babble-babel is a confusion of tongues. They cannot translate anything worth while, and the classicist who looks only at the ideal translation when he speaks in public, and not at the actual performance of his pupils in this classroom, lives in a Fool's Paradise. That the best methods of teaching modern languages reduce the perils of these efforts to ever smaller dimensions is one of their chief merits, and the classicist has much to learn of them.

Again, training and culture can no longer be contrasted with or even separated from utility. Psychologists agree that all that we have thought to be purely noetic is at bottom purely practical, for the intellect is one form of the will. Pure no longer stand over against applied sciences, and service is the supreme test of all culture-values. Only use-value is real, and there is no general ability that can be trained by certain subjects and then, once developed, be turned in any direction. Reason, imagination, memory, and the rest are from first to

last specialized by nature, and must be so by education. Hence we must also consider pragmatic values.

Latin and Greek terms are most needed in the glossaries or technical nomenclature of the biological and medical sciences, including chemistry, which it is estimated use more such terms than all the words known in Latin. The German seeks to duplicate every one of these words by those of Teutonic origin, often clumsily enough, while we have but one technical terminology. Mineralogy, geology, and paleontology also draw largely upon the classical dictionary. Mathematics, physics, and astronomy need but few such terms. Legal practice demands but a few score phrases bequeathed it from the Roman law, unless one is to be a student of the history of jurisprudence and wishes to read the Justian Codex in the original. The clergy need Latin and Greek, but few of our Protestant theological seminaries use the former, and some do not require it, while even New Testament Greek may be fairly said to be in a languishing condition. It would be interesting to know how many use it later. Technical students often get on well without either, but for all these scientific uses terms from a dead language are better, because they will not change with growth and so can be given a fixed, arbitrary, and sometimes even a new meaning. The other, and probably the chief, use to which Latin is now put is for teaching.

In the advanced and intensive study of Greek and Latin I believe with all my heart. I have visited the different national schools at Athens and Rome, and though not a classicist, have felt as a pedagogue their splendid scientific enthusiasms, and can in my dim lay way appreciate the magnificent results which the great leaders have achieved, and share their hopes. I would strengthen the classical departments in every university in this land and cheer them on with my heartiest *vivat, crescit, floriat*. My protest is against the qualitative degeneration that has gone with the quantitative expansion of these studies, especially in secondary-school grades where tradition and respectability have made them but the shadow of a shade, where the first year's high-school Latin of five hours a week gives a vocabulary (on which too much stress is given here) of less than four hundred words, about as much as a baby acquires of its own tongue the second year of life, about one quarter of this slender stock of words being so near their English equivalents that they could be rightly guessed without study. It requires little or no knowledge to translate *convenio* convene, *femina* feminine, etc. Under current methods of setting and hearing lessons, instead of studying with his pupils as I described in a previous article,<sup>1</sup> the American teacher

<sup>1</sup>See "The German Teacher Teaches," New England Magazine, April, 1907.

does not need be nearly so far in advance of his pupils as does the teacher of modern languages under the methods they now use. For the rank and file of Latin teachers, the pedagogic method is, if I am not mistaken, more antiquated than are methods in any other field, the preparation less substantial, and the work more often abandoned by the pupils. Some of the more conservative masters almost seem to feel it bad form to try to make their work easy or interesting, and have a certain esoteric aloofness ; so you easily detect in educational discussion their sense of élite superiority that talks *de haut en bas*, as if they were culture's own chosen and elect. In the days when Donatus and later Priscian were most in vogue, Virgil was read for the sake of the grammar, so supreme was form and so insignificant was content ; and later, to show how low Latin training can degenerate, we have abundant records in the history of education of clergy who used the Latin formulæ of the Church, but did not understand it enough even to change the genders in the prayers for the dead. Charlemagne's "Capitularies" describe sufficiently this condition of Latin training.

The modernists, too, have their enthusiasms. How many American teachers in all advanced departments look to Germany as the birthplace of their souls into the higher intellectual life ! There, and perhaps in France, possibly in Italy, we found our vocation, set our standards high, and our later pilgrimages thither are almost as to a Holy Land of science. Perhaps we, too, idealize their art, literature, life, fashions, and even errors. We need them to supplement and complement, as well as to spur us on ; and now, as everything is taking on cosmic dimensions and the world is acquiring a solidarity, he who knows but one living tongue is provincial. The Greeks did not have to study a foreign language, and who can say how much more indigenous their development was from this cause ? Had they done so, it may well be doubted whether they would have produced the immortal works which make their language a literature now so precious. And the Romans studied only Greek, which was to them a living, modern tongue. To be a citizen of the world, as the educated man and woman of to-day must be, we must know at least several tongues. Which is better, to be ancients, or to extend the range of our linguistic rapport among contemporary nations ? Every teacher of every department who wishes to follow the progress in his field must command at least French and German ; for translations from these languages, even the works of the first rank, are less and less. Reading knowledge of them is almost necessary for respectability in any line of scholarship to-day. If the American lawyer needs them less for the practice of his profession, the

American clergyman needs them more if he would lead or even grow. They open a rich, new, and varied field of untranslated literature, and not merely to the critic or student of comparative literature, but even to the reader of novels, dramas, and poems.

Much American talent goes into politics, and most of it into business, and if there is anything now needed more than anything else in these fields, both so suddenly broadened as we have become a colonizing world power, it is just the culture that comes from a broader, sympathetic view of how things in the field of industry and statecraft look through French, German, Spanish and Italian, not to say still other, eyes. Our American Bureau of South American Republics tells us over and over again that we are losing all these markets because we do not know French and Spanish, and fail to find or send there sagacious agents who do.

Our ambassadors in foreign lands are often totally ignorant of the tongue of the sovereigns and courts to whom they are accredited, and are often victims of imposition from the underlings in their own office ; and the same is often true of those appointed to rule the races that have recently become subject to us. We have been strangely provincial and linguistically insulated from the great family of nations, and have thus grown singularly incapable of profiting by the experiences of other lands, although we are now slowly improving in this respect. It would have been better for the past and present and future if the proportion of youth studying ancient and modern languages had been exactly reversed. Nothing gives such insight into and respect for another country as to study its language and thus to get into touch with its soul. To do this, to feel the aspirations, to know the achievements, to be spurred by the sentiment of emulation and rivalry and seek the virtues, and to avoid the errors and vices of other countries in which the *Zeitgeist* is now weaving the complex web of history, to realize that there are other excellences than ours, to be shamed for our political and social shortcomings by others' merits,—this and not converse with the past is the new, larger and truly humanistic culture of the present and of the future, toward which we must now strive ; for content and not form must lead.

## THE TEACHERS IN GERMANY DURING THE RENAISSANCE AND REFORMATION

By J. A. MUNSON

### ORIGIN OF THE GERMAN PUBLIC SCHOOL

Some scholars would have us believe that the ancient Germans possessed public schools long before they came in contact with the Romans, schools in their primeval forests—*scholae sub querco*—in which the priests taught the youth their wisdom and religion. This assertion is rather doubtful and possibly prompted by a pardonable national pride. More credible is the statement that about the year 600 A. D. there were schools for children in a few places in Germany in which Christian teachers, pious monks and devoted bishops taught the children not only religion, but also reading, writing and arithmetic. But they were only faint gleams in the universal night. Centuries had to pass before the need and reasonableness of popular education began to be recognized by men in authority. During the age of chivalry the strong will, refined manners and an active, practical life were of more consequence than learning. The highest honor was then won with spear and lance on the tilting ground and in the splendid tournament. Few, if any, had such advanced views on education as Charlemagne and the brilliant *savants* whom he gathered about him at his capital, Aix-la-Chapelle. The time was not yet ripe for the realization of that sublime thought—a universal public school—that the great Emperor cherished. Centuries had to pass before a conscious need created it. Charlemagne's great conception was, indeed, a prophetic foregleam of our modern public school, nothing more. For many centuries after his death the densest ignorance and intellectual indifference prevailed. A great part of the clergy is said to have been illiterate, unable either to read or write. Authors differ widely regarding the illiteracy of the masses during the middle ages. There are some who assert that at the end of this period, the common people were better instructed than the nobility and persons of princely rank. As instance is cited landgrave William I, of Thuringia, who, shortly before his death, in 1407, said that he had never gone to school and, hence, could neither read nor write. See (3) Vol. 2, p. 65.

The same is true of Wolfram von Eschenbach, author of the *Parzival*, who lived about two centuries earlier. L. Geiger,

in his work, *Renaissance und Humanismus in Italien und Deutschland*, p. 387, says, referring to the time before the reformation, that there existed lower and higher schools everywhere. And he quotes a theologian who in the year 1470 wrote: "Children ought to be sent early to schools with respectable masters." "Documents, moreover, show that the schools were well attended and the teachers highly respected." But as great an authority as K. A. Schmid says : "Recently the attempt has indeed been made to represent the positions of the teachers in the 15th century as altogether satisfactory and respectable ; but the proof seems to me but little successful. The evidences are too numerous which prove the contrary." (13. Vol. 22, p. 121.) In an age of wars, feuds, general intellectual torpor, and especially serfdom, or bond-service, with its abject poverty and wretchedness, such general education of the masses as Kriegk and Geiger believe prevailed, is extremely doubtful. Modern Russia, with a population of eighty per cent. illiterates, is an illustration of what mediæval Europe must have been.

The true origin of the German public schools must be sought in the spirit manifest in the conflict between the cities and the clergy, or rather, in the antithesis between secular and ecclesiastical interests. This division of interest reveals itself in the disputes, long and fierce, between the popes and the German Emperors, when blood flowed freely. In these struggles the cities usually sided with the secular power. With the growth of trades and commerce, it soon became evident that the church schools, where as a rule, only the mere rudiments of religion were inculcated, were totally inadequate. The Hanseatic towns, especially, as their business and commerce grew, required men trained above all, in reading, writing and arithmetic. This practical need gradually called into existence four kinds of schools, viz.:

- (1) Writing schools,
- (2) German schools,
- (3) Girls schools, and
- (4) *Winkel- or Klippschulen.*

The last or fourth were private schools run without the permission of the authorities. Efforts were frequently made to suppress them, but in vain, a fact which proves that despite their great imperfections, they met a practical need of the times. All these schools resembled each other in this, that they taught reading and writing. From the church schools they differ principally in their strictly practical aim and in laying no stress on religion and ethical training. This latter fact was one reason why the reformers either suppressed or limited them. But another reason for this act was the desire

to establish *public* schools where better and more efficient instruction would be given, instruction that should fit the young people for real, practical life, so that "sie sich in der Welt Lauf schicken könnten" (they could adapt themselves to the ways of the world), to use Luther's own words on the subject. New social conditions always call forth new truths, new institutions. The human mind, awakened out of its age-long sleep and aroused to intensest activity through contact with classic culture, and classic ideals in art and science, would very naturally demand a more universal dissemination and more efficient means for the propagation of this divine seed. Without fear of contradiction it can be said that the practical spirit and the glowing, unquenchable enthusiasm and love of learning inherent in the altered social conditions of the renaissance period gave birth to the public school. The church has always been conservative and having, especially in the past, had her eye fixed on heaven rather than on earth, she has repeatedly failed to know and meet the needs of a certain period, as well as adapt herself to a new environment caused by a ceaseless evolution. The church is, like habit, one of the most tremendous conservative forces in human society. At this time when a practical and secular spirit in education was making itself felt, she was not ready nor disposed to encourage and promote it, but rose in opposition. It is only quite recently that Christian people begin to glimpse the sublime truth that there is no opposition between the religious and secular interests and concerns of life. Had this been recognized from the first, all conflicts would have been avoided. But the city school had centuries long struggles with the church. Often the city was placed under a papal ban. In 1309 Glogau, and in 1324, Nordhausen, were thus put under papal interdict because incensed by the obstinate opposition of the clergy they had ejected the latter by force. Very severe punishment was inflicted on them and they were compelled to close their schools. However, a new one was soon opened which continued to exist until 1525. In Leipzig the struggle concerning the founding of the Nickolai school lasted 116 years. Many such cases might be cited showing the clergy's violent opposition to the new schools, the pope, with few exceptions, seconding them with his then greatly dreaded power of excommunication and interdict. But it was all in vain, the new spirit was destined to be victorious. In the reformation it gathered new strength and grew until it blossomed forth in the modern public school, the *alma mater* of the whole world. The church's claim to be its real founder rests on a confusion of historic facts and the ignoring of its essentially practical and secular character. It is perfectly true

that the clergy were enjoined, at a very early date, to teach the children prayers, hymns, and articles of faith—this practice was continued by Protestants also—but can certainly not be called public school instruction. What the servants of the church did was only what a pious mother or a good maid-servant might do, viz.; teach the children in the family to pray and have them repeat what they had learned by heart. If the public school had grown out of this pious custom, it ought to have started first and become universal in countries where the church had absolute sway. But this is not a fact. (1, Vol. I, p. 7.) A. Hauber in his article *Volksschule, Encyklopädie des gesammten Erziehungs- und unterrichtswesens* Vol. 10 says, speaking of the German schools where reading, writing and arithmetic were the chief branches of instruction: "These schools sprang rather from the need of city life, from the care for that part of the people which was engaged in trades and commerce through an endeavor to secure educational opportunities for the people as a whole." And he adds that the founding and regulation of the school system was chiefly the work of the civil authorities in Germany, of course in connexion and co-operation with the clergy.

As regards the age of the secular school in Germany, nothing definite can be ascertained. The earliest record is found in a chronicle of the city of Lubeck for the year 1262. It is there stated that the city has received permission from the clergy to establish four *dudesche Scrifsculen* (German writing schools) with the strict provision that only German, reading, and writing may be taught and *nota bene*, that the schools must be under the control of the Scholastic. As soon as they desired a change of these limitations they came at once into conflict with the church which replied to the city council's request with an interdict. Not until 1418 was a compromise effected. The Scholastic then retained the right to appoint and discharge the teachers and superintendent of the schools. The teachers were also required to pay the Scholastic one-third of the school money (salaries did not yet exist). That they would do this honestly they were obliged to swear by God and His holy gospel. These facts show that these disputes between the city and the clergy had not merely a pecuniary cause, the school money, as Prof. Paulsen holds, but that they involved also a question of power. The church desired to mould, direct and control these schools.

J. N. Becker in his History of the Grand Masters in Prussia, published in 1798, asserts that Winrich von Kniprode founded schools for country children as early as 1351-1382. Winrich is there said to have secured able teachers from other parts of Germany and to have placed them under the care and direc-

tion of the priests in the different villages and hamlets. These teachers then in their turn educated other teachers. In this way he is said to have been able to establish a school in every village with at least sixty families. In these schools the children were taught the German language, reading and religion. But Becker's story is doubted by many scholars and contradicted by others. Such a state of popular education certainly fits the 18th century rather than the 14th. Fr. Wienecke says, "No village or sexton schools existed in Mark Brandenburg before the reformation. In the report of the school inspectors from 1540 to 1542 the income of the sextonships is carefully specified; nowhere, however, is a school mentioned." See (15, p. 769.) Nevertheless, sextons who could read and write probably taught the children these things. But we know that such sextons were very rare. Wienecke's recent researches would tend to show that Becker's early account is a gross exaggeration, if not a pure fiction. Even after Luther had given a powerful impulse to the education of the common people by his fiery enthusiasm and his earnest appeals to cities and rulers to establish common schools, and his learned colleague, Melanchthon, the *Magister Germaniae*, had published in 1528 his plans for popular education, the growth of the public school was exceeding slow. The cause of this sad state of things is well expressed by Konrad Fischer when he says: "No one felt either a divine commission or a lively impulse of the heart for the extension of popular education. . . . The establishment of country schools was a slow process even where the reformation had been entirely carried through. The church was satisfied when the clergyman or sexton taught the most necessary articles of faith. Desires for the introduction of reading and writing were present, but not in positions from which the promotions of the schools could be expected." And again he says anent the same subject: "The combination of reading with drill in the catechism is the characteristic feature of the common school, and those authors are right who from this arrangement derive the general founding of the German common school through the reformation. But the universal introduction of such reading schools in the country cannot be said to have taken place before the end of the 16th century. Reading as a branch of instruction in child education (*Kinderlehre*) was an exception, simply because sextons who could read were lacking. For instructing the children in the catechism the sexton was prepared by the minister." In view of these facts Becker's rosy picture of the 14th century must be taken with a great deal of allowance.

**THE TEACHER**

We shall now describe very briefly some of the various kinds of teachers, what sort of persons they were, their education and preparation for their profession, their duties, their social standing, their salaries, the classroom, etc.

**THE SEXTON TEACHER**

The sexton of the German evangelical church had six different names, and filled in olden times many more offices than these names indicate. He was called Kuester, Kirchner, Gloeckner, Messner, Opfermann and Sigrist. As time passed new duties were assigned him. Originally he had to ring the bells, keep the church clean and in good order, open and close it whenever meetings were held, lead the singing when the country churches had no organ, take up the collection and assist the minister at the administration of the sacraments. Occasionally, when the minister was prevented, he was obliged to take charge of the usual instruction in religion, which consisted chiefly in hearing the children recite by heart the essential parts of Luther's catechism, scripture passages and prayers. This occasional supply teaching soon became a custom and catechetical instruction became one of the sexton's regular duties. In the church regulations of Saxony of the year 1533 it is required of the sextons that: "They shall at times, especially in winter, teach the young, and also the rest of the people, the Christian songs and faithfully and properly help them sing in church at mass and before and after the sermons." Later the church authorities required that "they should call together the children and young people Sundays at noon in the neighboring villages belonging to the parish and read to them and have them repeat Dr. Martin's smaller catechism so that the youth may not be neglected; this has been the duty of the sexton since olden times." The latter statement can, of course, only refer to a very small part of Germany. It is plain that such teaching did not require much education, ability to read being quite sufficient. But the ability to read was often considered of less importance than a strong, clear voice and a ready willingness to do all sorts of menial services for the worthy pastor. Even in Luther's time, and long afterwards, very few sextons were able to read. In 1556, or ten years after Luther's death, there were in all Low Saxony but seven sexton schools. When we bear in mind that the great reformer was a native of Saxony and spent all of his active life in that country, we can form a fair idea of the slow progress of popular education. Owing to the dearth of even these low grade teachers it is not surprising to find the following provi-

sions in the school regulations of Electoral Saxony of the year 1557 : "Poor people without education are permitted to hire a poor school boy to teach their servants the catechism and church hymns." When in 1552 the establishment of schools in Nassau was being planned, it was found that all the sextons except one were unable to read, and the latter had no inclination to teach. "Very few felt a divine call to teach the children." About one hundred years later things had greatly changed; for then the village schoolmasters with university training were quite numerous. Of the schoolmaster at Rastaetten in 1620 the following record is preserved : "he has studied at Hersfeld, Bremen and Marburg;" of a second, "he studied at Mayence, Cologne and Heidelberg;" and of a third, "he has studied at Cologne, Mayence and Heidelberg." In 1617 a country schoolmaster near Goettingen was discharged because he could not decline the Latin adjective *felix* properly. Besides all the duties enumerated above the sexton had to lead the prayer meetings in some neighboring village belonging to the parish. The sexton at Schlierbach in Lower Hesse, for example, had to hold the weekly prayer-meetings in the village inn before the schoolhouse was built. For each such *Sonntagsandacht* he received an Albus (30 cents) and a drink of whiskey. Being practically the servant of the minister he was often obliged to do menial work in the former's house, garden, etc. When the pastor went to officiate at an affiliated church, the sexton had to carry the ministerial robe and official vessels, or act as the minister's substitute by reading a sermon to the congregation. The duties of the sexton schoolmaster grew as time passed, but always in the direction of the church, not of the school. Sometimes he filled the office of village and court clerk, as may be learned from the autobiography of the famous knight, Hans von Schweinichen. One of his most important duties was to have charge of the village flour scales, because he was frequently the only one in the whole community who could write and figure. This he performed with great alacrity because, at the same time he had an opportunity to hear all the news and the gossip of the place and vicinity.

Most of these early teachers were artisans before they entered upon their new duties. Ability to teach was certainly desired, but was not a qualification that decided the election of a man. When in the course of time ability to read was required the position of sexton teacher lost its attractions for many, because teaching children to read required much more time than the Kinderlehre (catechisation).

His salary was shamefully small. In 1529 the following order was issued by the church at Altenhofen, near Leisnig, that the pastor, as long as he filled the position of sexton

teacher should, in addition to his salary as minister, receive that of sexton also, which consisted of  $8\frac{1}{4}$  bushels of grain, 65 home-baked loaves and 10 dozen eggs! All earnest advice by bishops and others to support the teachers decently, availed nothing, because there was neither law nor compulsion, and worst of all, no intelligent appreciation of popular education. The testimonies of numerous contemporaries give us a very clear conception of the teacher's wretched condition. Only a few can be cited. Speaking of this subject Luther says: "I am astonished that honest people are still willing to become teachers." Johann Matthesius expresses his feelings more boldly about the year 1550. "Schoolmasters and priests," he exclaims, "might indeed rot in poverty and dirt!" In 1588 Nikodemus Frischlin complains of the scarcity of good teachers, but admits that a capable man cannot be blamed for keeping away from such a miserable profession." "Men," he says, "who have spent the whole day in the stench and noise of the boys and have become half consumptive, half deaf, must, in many places when they return home, eat the bread of misery and drink the water of sorrow. If examples were not distasteful, I could mention cities where the swineherd and cowherd receives a larger salary than the schoolmaster!" Eobanus Hessus, the celebrated friend of Melanchthon, who had been rector or principal at Erfurt and Nuremberg and, hence, speaks from his own experience, says: "What compensation do we get for our pains? Fasting, vexation, consumption, disease, and constant cares. Every other profession supports a man; terrible poverty oppresses the school teacher, and the supercilious pride of others utterly humiliates him; every simple clerk, pettifogger or mendicant monk has the preference. Thus pale old age overtakes us in the very spring of life. Oh, rather death than this profession!"

Since he had to live the teacher was given certain rights and privileges. In Samland, East Prussia, for example, he had liquor and huckster license. On Sundays it was therefore very lively in the sexton's house after the divine service when those attending the church made their purchases and strengthened themselves with a few drinks for their homeward journey. Later on improvements were attempted. In 1568 the Bishops of East Prussia ordered the farmers to pay a school tax of 8 shillings per acre. Cloister property, confiscated by the reformed governments, was also used for paying teacher's salaries. In Electoral Saxony every child had to pay the teacher 2 pfennig—half a cent per week. Thus the teacher's meagre support was provided for in different ways in different localities.

The discipline which the sexton teacher learned from the

rector and teachers of the Latin schools, gives us a rather unfavorable idea of the German teacher in those early days. Entering a dingy, wretched looking room, where the children, for lack of benches sit on the bare ground (for as a rule wooden floors did not exist) you hear frequent scolding, cursing, threats, reproachful remarks about the child's physical defects, etc., alternating with terrible blows. Fechter, in his history of Basel, says: "They (the teachers) impress upon the boys how to behave by tying them to the bench, by threats, blows, pulling of the hair and ears. Sometimes they torment and treat them in the manner of barbarians and hangmen, striking holes in their heads, squeezing their fingers in such a way that the blood issues from under their nails, tearing bunches of hair from their heads and even stepping on them and kicking them with their feet."

Such disciplinary measures do not point to a very high culture of heart and mind on the part of the teachers. Still, we must not judge them by our standard. We must remember that such manners and customs were common among all classes at that time. In the 16th century corporal punishment was universal. Even aristocrats, who were the special representatives of culture and refinement, used to cuff each other's ears when they became angry. The Silesian knight Hans von Schweinichen (1552-1616) relates in his diary that his prince, the Duke of Liegnitz, struck the Duchess with his own hand, and that without causing any rupture in their marital relations.

#### THE TEACHERS OF THE LATIN SCHOOLS

At the end of the middle ages every large town in Germany had high schools for the education of the sons of the higher classes. Most of the teachers had studied theology at some university, but some had no higher education. About one-third had the degree of A. M., one-third A. B., and one-third had no academic training. They did not choose theology because the school was under the auspices of the church, but because the teacher's profession was looked upon as a necessary evil that an educated man had to endure, or to use a then current figure, as the purgatory that the young scholar was compelled to pass through before he could reach the position of pastor, where, free from the toil, brain-fag and vexations of the classroom, he would find his heaven of rest and contentment; Luther also desired that teaching be made a preparation for service in the church. The great reformer was unbiased enough to recognize that, under then existing conditions, no well educated man could be expected to make teaching his life work. Therefore he says: "When

a person has taught for about ten years he may, with good conscience, stop. For the work is great and is held in low estimation."

Students, of theology, law and medicine, took up teaching as a makeshift until something more remunerative and agreeable could be secured, a state of things identical with that of our own country at the present time. Teaching was just as unprofessional in Germany long before and after the reformation as it has been and still is in the United States. Such a thing as the *Philologenstand* in modern Germany did not exist. Owing to the gross and brutal treatment prevalent at the time, the teacher often lacked that personal refinement and culture of heart and mind that is a necessary qualification of his modern representative. Many of these educators in the Latin school of mediæval Germany were, besides, great ignoramuses. It is both interesting and instructive to read what the greatest scholar and humanist of genius of this epoch, viz., Erasmus, has to say on this point. He draws a drastic, vivid and repulsive picture of a class of pedagogues in his own day. He says : "How strange it must have seemed to the boys, who, scarcely four years old, were sent to a school conducted by an uneducated, boorish, immoral teacher, not quite right in the upper story, after having had attacks of lunacy and epilepsy, or even what is called the French disease ! For in our day there is no one however wretched, useless, insignificant whom the common people do not consider fit to conduct a school. And how proud they feel when they have the school scepter, how they rave, what a rule they carry on, not among beasts, as a wag puts it, but in the presence of the young, who ought to be treated with all gentleness ! It should not be called a school, but a chamber of torture; for when the blows of ferules and canes are raining, nothing is heard there but shrieks, sobs, and gruesome threats." Full of anger and righteous indignation Erasmus calls these pedagogues "torturers and hangmen." "Just think," he says, "how many happily gifted minds those ignorant hangmen are able to ruin, men puffed up with imagined learning, whimsical, given to drink, hard hearted, who whip for the fun of it, and have such a terrible disposition that they find pleasure in the pain of others. Such creatures ought to be butchers or hangmen, not educators of the young." If Erasmus were the only one of his age who gave us such a pen picture of the city schools, we might think it considerably overdrawn, possibly a prejudiced exaggeration. But other men give us similar pictures from the same period, as for example, Nikolaus Hermann, 1480-1561, author of evangelical child and cradle songs and other religious books, Erasmus

Alberus, 1500-1553, a teacher and minister in fifteen different places, a zealous and staunch Lutheran, and the humanist, Johannes Butzbach. The last one says in his autobiography : "The scholars generally called the assistant teacher the 'hireling'." Then speaking of his own experience he relates : "He had the clothes torn from the body of the truant boy and then had him tied to a post; and now the cruel man struck me in the most violent, unmerciful manner and with all his might with rods, while the whole school was obliged to sing a song." The author, however, adds that the teacher was in this case taken to task, chased away and an Erfurt *baccalaureus* became a Wittenberg policeman. Of course, we must not suppose that all the teachers were as brutal and unfit as those just described. Nevertheless, the generality seem to have been men of coarse vein. As already intimated, the cause of this lay in the *Zeigeist*. The life of all classes was then low and vulgar, as compared with our own. Ethical evolution is slow, and innumerable factors have, since that day, been at work to bring about the gentler and humamer spirit of our times. Even the universities, the highest seats of culture and learning were, during the middle ages, characterized by a low, immoral spirit. Luther calls them "great gates of hell, inventions of the devil, and murder dens."

The teachers in the Latin schools were the following :

- (1) The Schoolmaster or Rector.
- (2) The Cantor.
- (3) The Gesellen, or Assistants.

The first two were generally clergymen with some university degree who looked upon their profession as only a stepping-stone to the ministry. The term schoolmaster at that time conveyed a greater sense of dignity and respect than at the present, and the head of a Latin school was quite willing to bear that title, often signing himself simply *Schulmeister*. He was chosen by the city council for one year only, being, as a rule, a theological student, very rarely a layman. He is often given the power to choose his own assistants. As soon as he has been elected he is given a so-called *Haarpfennig* as earnest money and is directly conducted by a representative of the council to the schoolhouse. This is often low, dingy, and dark, with broken window panes pasted over with paper. The rector is allowed five pfennig—one and one-fourth cents—annually for such repairs. The classrooms have no floor, and not benches enough for the scholars, many of whom must sit on the bare ground just as in the sexton or village school. On the wall is a wooden blackboard. The rector has but one bench. On the ground floor are the classrooms, cheerless and uninviting. On the second or top floor are the rooms for the

rector, the cantor and the assistants. The noble council assigns to the first two a room each, or two small ones. The assistants get one room together and a bed each. No teacher is allowed to share his room with any outsider. Sometimes the city furnishes fuel for heating purposes, but often fails to do so, in which case the students bring wood with them, which they have stolen on their way to school. In the larger and richer cities conditions were, of course, better. The above description applies to smaller and medium sized towns.

The rector has to choose his assistants from educated adventurers, run-away monks, discharged clergymen and poor students, who were glad to teach merely for board and lodging, the city council cared nothing for them, the rector hired and discharged them just as he saw fit.

How were these teachers paid and supported? On this subject authors differ exceedingly. Some writers, as we have seen, claim that there were more and better schools in Germany before than during, and centuries after the reformation. So this class of writers hold that the teachers were better paid before than during and after the reformation. Says one author: "The city school teachers were everywhere so well paid that to the end of the middle ages we never hear them complain." (3, p. 67.) The historical fact that before the reformation, as a rule, the teacher received *no fixed salary* divests such assertions of all credence. The truth is that the city or Latin school teachers like all the rest received starvation wages. Of course there were exceptions. "In view of numerous testimonies at our disposal from 1450 to 1520 the attempt should not be made to dispute this." (13, Vol. 2, p. 121.) Erasmus tells us that grooms and keepers of falcons received larger salaries than teachers. The first attempt to raise the teachers' salaries was made by the reformers (4, p. 417).

In certain parts of Germany the rector and his assistants or *collaboratores* had free board, *i. e.*, they had the right to go from house to house, those assigned them, and receive a certain number of meals free. This custom was variously called *Reihegehen*, *Freitisch* or *mensa ambulatoria*. It was naturally looked upon as a favor extended to them, and consequently very humiliating to the profession. That it was not given gladly and unstintedly is quite plain. In 1638 a school regulation impressed upon the teachers who enjoyed the *mensa ambulatoria* that they must not sit too long at the table in order not to appear burdensome to the citizens. This custom was not abolished till the 17th and 18th century.

As already stated, before the reformation the teachers received no fixed salary, but had to put up with students' fees

(*Schulgeld*), small and often tardily paid. It differed, of course, in different parts of the country. In some cities the rich scholars were required to pay 2 shillings quarterly, the poorer ones half that amount, and those destitute of means went free. There were also various ways and customs in vogue for increasing the rector's meager income. Some strike us moderns as very odd. A few only can be mentioned. If the rector allowed a student to go home at Christmas or some other holiday, said student had to crawl between the rector's legs, while the latter gave him a slap behind. For this performance the student had to pay the rector one penny called *Austreibegeld*. If a large scholar was caught speaking German instead of Latin he received for each offense one blow with the ferule, but he had his choice between paying one farthing for three offenses or else receiving the three blows. The money went to the rector. Frequently the rector filled quite a number of offices, as for example that of organist in the church, sexton, and clerk of the town council, usher and table director at weddings, baptisms, etc., yes, even tax-collector. On holidays, except Christmas, the pupils were expected to make him a present of something. At funerals and weddings, where he usually officiated, it was customary to remember him with a gift. On Palm Sunday he generally received a rooster. The magistrates also permitted the children to bring him cherry stones for his beer. The kernels of these stones were supposed to give the beer a bitter and wholesome taste good for the stomach and sharpening to the appetite.

Half of the regular students' fees belonged to the rector, the other half was equally divided among the other teachers, viz., the cantor (whose duty besides teaching was to lead the singing and select all the Bible lessons to be read) and the assistants (*Gesellen* or *locati*). The teacher in the lowest grades received as much as one in the higher. For strange to say, at that time, the authorities reasoned thus. Although the teacher in the lowest grades has not the learning and preparation of his colleagues in the higher, he has more children under him and therefore much more work. This approaches the advanced idea of Richard Mulcaster (1531-1611) who, as Mr. Quick says, "has the boldness to propose that those who teach the beginners should have the smallest number of pupils, and should receive the highest pay." "The first groundwork would be laid by the best workmen," says this remarkable Elizabethan schoolmaster.

In many places it was customary for the clergymen-teachers to board with the church officials, for example, the pastor. Being thus under two masters, viz., the town council which hired them, but paid them nothing, and the church, which fed

them, they felt themselves under no real obligation to either, and the work would naturally suffer. Now, since they were obliged to lead such a precarious and wretched life, often having to submit to most humiliating customs, as for example the *mensa ambulatoria* already mentioned and the sending of school boys with the so-called alms baskets, the boys being often dismissed with coarse jeering remarks, we are not at all surprised to find that their social standing was very low, and that they were ignored and looked down upon. This was certainly the rule in smaller towns.

#### THEIR TRAINING

The training of many, perhaps the greater number, was very deficient. This is proved by many contemporary records. Felix Faber, who wrote a chronicle of the city Ulm about 1490, says that among thousands of clergymen scarcely one had even seen a university town, a *magister* or *baccalaureus* was looked upon as a wonder. A little later the burgomaster of Bierstaedt in Mark Brandenburg gives a sad picture of teachers as well as students in a speech at the dedication of a Latin school. "The scholars," he says, "remain in school till their 30th year and finally learn grammatical trifles which are of no use to them, and in all other branches they are ignoramuses like *their teachers*, who consider a man able to read Greek a wonder; for to understand it is an unheard of thing."

#### THEIR DUTIES

The rector's task was not very heavy. He never taught more than three hours a day, but longer hours were required of his assistants. Still their work was comparatively easy; for they had no papers to correct, and no preparation of the lessons outside the classroom was necessary. Instruction consisted merely in dictation of various exercises, assigning and hearing lessons learned by heart, such as prayers, articles of faith, psalms and hymns—all barren memory work—and explanation of the catechism. Song and Latin were the chief and most important subjects of instruction in these early Latin schools. The elementary arts, reading, writing and arithmetic were also taught.

#### THEIR LEISURE

The teachers of the city or Latin school had but few days vacation during the year, viz., at Christmas, Easter, Whit-sunday, Lent and St. Michael's day. In the dog days they had half a day free when the heat was too great and one hour when "poor sinners were executed." When the teacher had

pressing business and desired to go away, he might do so, provided he secured a substitute.

#### CHARACTER OF THE TEACHER

Many school regulations and old records throw a strong light on our mediæval colleagues and certainly prove that the world is slowly advancing. The fact that such rules and restrictions as the following were necessary, is evidence enough that the taste and moral standard of the teacher have been raised. The authorities interfered more directly with the liberty of the teacher during the middle ages than now. The city council, which had gradually acquired control over the school, soon assumed the right to prescribe the dress a teacher should wear, and how he should behave in society. This was done in sharp, unequivocal terms and with serious threats. The school regulation of Brunswick for the year 1596, after commanding that the teachers must profess and defend the pure gospel, continues to lay down the following injunctions:

"The teachers must, as regards dress, gestures, words and actions, appear in public in a respectable, inoffensive manner. It will not at all be permitted that they come before the young or decent people without the clerical frock and mantle. Nor must they or their pupils wear high, broad-brimmed hats, padded hose, or wide, knightly sleeves, all sorts of many colored, gaudy stockings, and all such unbecoming things that are in fashion and which are opposed to respectability and their profession.

When any one is found guilty of blasphemy, sorcery, frivolous use of God's word, defiance, slander of superiors, useless disputes, or causes malicious quarrels, and factions, carries murderous weapons or is given to drunkenness, gambling, cheating at cards and mischievous tricks, holds secret drinking bouts in public inns or taverns, cook shops, disreputable, suspicious places, and takes part in nightly street life and uses disgraceful, vulgar language or behaves in an offensive way at banquets, marriages, writes or distributes lampoons and libels, or is found guilty of other public vices, then, as soon as it becomes known, the teacher shall be deprived of his title and position." For, the council adds, "as long as such sins are tolerated school affairs cannot be improved."

Another regulation with reference to the superintendent's visits to the schools brings out other traits of the teacher. The reformers and their successors instituted regular visits to the different schools. This custom was first established in Saxony and later in South Germany. The regulation also provided that the superintendent should examine the students whenever he pleased, and ask questions about any part of the

subjects they had studied. For it had been discovered that the teachers were in the habit of distributing the questions to be asked by the visiting examiner, three or four weeks ahead. But the regulation seems to have had little effect, because—and this proves the total incapacity of many of these old time teachers—the record tells us that the clergyman-teacher was often unable to see any difference between reciting what had previously been committed to memory and an intelligent, original answer. It would appear also, that the visitors did not inspire much respect. In the presence of the distinguished visitors the teachers might be as harsh and unkind towards their pupils as on any other occasion. This may be inferred from the following school regulations: "When now the superintendent and his assistant have begun the examination, the colleagues (*i. e.* the teachers) are in their answers, to refrain from sarcastic remarks and insinuations in the presence of the boys." This prohibition was doubtless timely and necessary; for, not only many Germans, but other European teachers are, to this very day, given to harsh and sarcastic remarks in the presence of the boys, as the writer knows by experience. When we remember, that, since time out of mind, corporal punishment had been the customary way of inspiring fear and respect in children and young people, it is not at all surprising if the teacher's words, at times, resemble the whip. It is his bounden duty to whip naughty and disobedient boys. When the schoolmaster is installed in his office he wears his long flowing gown and his round cap and receives in the presence of the assembled boys, from the wise and dignified city council, *ferulam et baculum* as a visible sign of his authority. Thereupon the council strongly and explicitly enjoins upon him to use these means of punishment diligently, or else lose his position. The people of the middle ages believed firmly in King Solomon's advice not to spare the rod. In 1567 a teacher at Heidelberg was discharged because he "would not use the rod on the youngsters!" He considered it unreasonable to whip fellows nineteen years old, but the authorities thought differently.

On a beautiful summer day the scholars had an annual holiday called *Vergatum-Gehen*, when they went into the woods to cut and bring home *virgae*, switches and rods to be used in the school during the year. This custom was continued in some parts of Germany till the 19th century. It was by no means a sad day for the young people, but an occasion for fun, music and dancing. This shows the important part that corporal punishment played in mediæval German education. It still exists in European countries and has a wholesome effect when used wisely and with discretion. A young Englishman

who was amazed at the behavior of American students, told the writer not long ago, that he received a good caning at Harrow when eighteen years old. The total abolition of corporal punishment from American schools and homes is not wise. Said a lady, who, for many years had had the unenviable privilege of teaching neglected, naughty and ill-behaved lads : "American boys should be put into a barrel and fed through the bung-hole till they are 20 years old." Boys are too often allowed to follow their own sweet will without any punishment following. Liberty is thus abused. We should ever observe the splendid motto, expressed in all the phases of the well-balanced, symmetrical Greek : "Nothing in excess."

#### THE PRIVATE TEACHER

This class of teachers consisted mostly of wandering scholars, clergymen and students whose strongest passion was *Wanderlust*. They were very numerous all through the middle ages. As early as the 5th century there were many priests who led such a wandering life and may be regarded as the prototypes of the *scholares vagantes* of a later age. Synesius, bishop of Ptolemais (410-431) complains of these *cleric vagantes* because of their unsettled and parasitic life. Their successors in later centuries gave farmers and other classes of people cause for the same complaint; for they actually degenerated into a veritable *Landesplage*, becoming thieves and cheats of every description. Their general character is drawn in glaring outlines by many contemporary writers. Luther in his virile, blunt and incisive language says of them: "Such towns as will not have good teachers, now that they can be secured, ought, as formerly, to have *locati* and *bacchantes* (the last word is probably a corruption of *vagantes*)—stupid asses who cost money enough and yet teach their pupils nothing but to become asses like themselves." Giesebricht, in an article in the *Allgemeine Monatsschrift für Wissenschaft und Literatur*, 1851, quotes the words of a contemporary monk Helinaud : "The scholars are accustomed to wander throughout the whole world and visit all the cities, and their many studies bring them understanding ; for in Paris they seek a knowledge of the liberal arts, of the ancient writers at Orleans, of medicine at Salernum, of the black art at Toledo ; and in no place decent manners." These happy-go-lucky fellows were quite Epicurean in their habits ; for they had a patron saint called Goliardus Episcopus, from whom they were nicknamed Goliardi or Goliardenses. Golias is probably derived from the Latin word *gula*, and would then point to their gluttonous, intemperate life. They were also known under the

name a-b-c-shooters, indicating their twofold occupation, viz., their elementary studies and their way of gaining a livelihood. The latter was done by throwing (shooting) stones at domestic fowls. Thomas Platter (1499-1582) in his autobiography gives a vivid and realistic picture of such a performance. Possibly our own expression, "teaching the young idea how to shoot," is historically connected with this mediæval term.

While wandering thus from country to country, from school to school, chiefly to satisfy their *Wanderlust*, these students acquired not only some theoretical information but also knowledge of men and the world at large. Some of them were hired by the rector of a city school, as already intimated. But they were also picked up by noblemen and wealthy persons to become private tutors of their children.

It certainly seems strange that even the higher classes, at this time, would intrust their sons to such incompetent, ill-prepared and often immoral teachers. It must not be forgotten, however, that, although there were some men who loved culture and education, were inspired by lofty ideals of the teacher, and set a high value on his work, for example, the humanists and later Jesuitic educators, like Father Sacchini who declared, "*Puerilis institutio est renovatio mundi*," still intellectual lethargy and indifference was the rule throughout mediæval society. Still the spirit prevailed that characterized the knights who, during the centuries preceding the renaissance and humanism, scorned a man of letters and cared only for tournaments, hunting, court-life and especially the society of ladies.

A wise Greek reproached his countrymen for choosing slaves as educators of their sons. The great Erasmus follows his example in his book *Declamatio de pueris ad virtutem ac litteras* etc. Here he points out in his keen-edged satirical manner that skillful, experienced men are selected to work in the fields, to build houses and take care of the horses. "But," he says, "if any one is absolutely useless because he is lazy or silly, yes, even dissolute, then he is made teacher of the boy." The humanists agree in tracing this deplorable condition to the indifference and intellectual apathy of the higher classes.

But there were also men of high attainments as scholars and of unimpeachable character who accepted positions as private tutors. Since the time of the Greeks and Romans it has been a custom among princes, rulers and aristocrats to appoint educated men tutors of their sons. Philip of Macedon engaged the greatest scholar of all times, Aristotle, to educate his son Alexander. His example has been followed ever since by kings, emperors, etc. In mediæval times the students of wealthy parents were usually accompanied by tutors even at

the university. Wehrmann in the *Archiv für Kulturgeschichte*, Vol. I, gives us a picture of a better class of tutors. He quotes a contemporary document enumerating the daily routine of the Hofmeister or tutor of the Pommeranian princes, Johann Friederich, Ernst Ludwig, Barnim and Kassimir, who lived in the latter part of the 16th century. The tutor must instruct their royal highnesses not only theoretically in the *Lehre*, i. e., religion, but also in good manners and virtues. He must be their servant, must dress them and comb their hair when they rise in the morning, and undress them in the evening, wash their feet, see that they get properly to bed; he must also rise during the night to see whether they are well covered or not. The subjects taught are catechism, Latin and writing. Most of the time devoted to study is given to Latin grammar.

Magerius, a Greifswald professor and a Frenchman, educated at the University of Orleans, was appointed tutor by Duke Philip of Pomerania to his sons in 1552. The learned professor gives a minute account of his duties and the daily routine. He teaches the all-important Latin, written and spoken, writing, French and music. Catechism and Latin grammar are the two most important subjects. He must devote all his time to his pupils, at work and at play. At the table, for example, he must keep an eagle's eye on them and see to it that they behave properly, eat and drink moderately, and avoid frivolous language and improper gestures.

Daniel Staubitzer, who attended the Torgau city school in 1574 tells how he secured a position as private tutor while there and how beside his regular duties in teaching and waiting on the boys, he was obliged to do all sorts of common labor and menial jobs, such as taking products to and from the market in a wheelbarrow, etc.

One clause in the contract drawn up between the tutor and his master strikes us moderns as very strange, viz., that the tutor must suffer for the mean tricks played by his pupils. If the boy commits a depredation that deserves a flogging the teacher must receive it.

In the Brunswick school regulation for the year 1596 is found, among numerous other rules, the following regarding the private teachers: "At the home of their employer they are to respect, obey and fear the master and the mistress, show themselves ready for service, never go out of the house without their knowledge and permission, much less stay out nights, be satisfied with the daily food and lodging, however simple it might be, and be submissive. Towards the children they must be friendly and gentle, awaken them at the right time, dress and wash them, comb their hair and make them say their prayers, take them to and from school, teach them the cate-

chism, nice psalms and short prayers, help them to understand their school lessons, etc. . . . As regards the property, money, food, servants and friends of their master, they are to show themselves honest, not cheat, steal or give away anything, restore to the master what has been found, not brawl, quarrel or fight with the servants, not do any harm to the master's house and provisions, not wash anything outside the house, not read the letters of other people, but be quiet, modest, honest and faithful."

Such in brief is a truthful account of the German school-master in the days of the Renaissance and the Reformation as the writer has attempted to frame it with the aid of various authors and documents. It has seemed best to treat only of the three most typical and representative classes. The university and Jesuit teachers should be described if space permitted. The literature in regard to them, however, is rich and easily accessible.

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## LITERATURE

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*Which College for the Boy?* by JOHN CORBIN. Houghton, Mifflin & Co., New York, 1908. pp. 274.

The six chapters, most of which have appeared elsewhere and are here brought together, are Princeton, a collegiate university; Harvard, a Germanized university; Michigan, a middle-eastern university; Cornell, a technical university; Chicago, a university by enchantment; Wisconsin, a utilitarian university. The author writes in an attractive way and has evidently sojourned more or less at each of the universities he describes and at others. He appears to have consorted not only with the faculty but a good deal with college fraternity men, and he has some knowledge of foreign universities as his book, "An American at Oxford," shows. He is, however, first of all in his sympathies and in his mental traits a Harvard man and never can be anything else. Of course there are many types of Harvard men and he represents a unique species of the genus, one trait of which is to almost ostentatiously ignore the elements of a problem that are most apposite so that to the ordinary minds, there are striking gaps. Another is to meet criticism thus ignored by a very *ex parte* marshalling of facts to indicate the precise opposite, for instance, Owen Wister's criticisms, which are tingling in the souls of all of us who have Harvard degrees, are utterly ignored or rather met by assuming that Harvard is already a German university. This is perhaps the greatest *tour de force* in this engaging book. To call an institution that keeps school, that marks every recitation, has sprung examinations, grades, disciplines the boys, and still holds, I believe, to one or two required subjects with text-books and recitation, and which confesses annually that its graduate department is very inadequately organized, a German university is rather unique. This performance is particularly Harvard-esque, since the country has one, and only one, German university, namely, the Johns Hopkins, that created the most important new departure of the last generation and added a new story to our whole educational system and which indeed is more unique than perhaps any other institution in the country, if one considers the educational history of the last thirty years. The author has the "high art of ignoring the pertinent" to a rare degree. He shows also the almost inflamed consciousness of the distinguished president of Harvard. There are repeatedly dark intimations of awful errors and of criticisms which must be brought forth with pains almost as acute as those of childbirth, but so far as these criticisms can be inferred, they are slight and rather trivial. The author, too, is candid enough to quote Professor Hart, who probably is a better representative of Harvard, at several points, but he is answered in a tripping inadequate way. Perhaps the best things in this book, when all are considered, is the author's candid appreciation of the great work of Chicago University, and still better and more surprising is his appreciation of the "utilitarian university," Wisconsin, and the movement to which he devotes a chapter, "The Farmer's Awakening." Of course Yale "cuts no ice" in this book, although there are several rather critical allusions to it and to its president. Probably none of the institutions described entirely fit the author's designation—Princeton has university aspirations and probably will sometime resent being made a typi-

cal college, Cornell can hardly relish the designation "technical," and surely there are many at Harvard who oppose the author's view that it is Germanized, for have we not heard for many years the claim that it is truly American? Mr. Corbin's book in fine is, despite these rather quaint defects, full of information, suggestive and stimulative and provocative of educative thought in a high degree, much more so, it must be said in truth and yet with sorrow, than any of the half-dozen volumes of addresses by our eminent college and university presidents that have appeared within the last few years. But to revert, it is a very heckle problem to characterize a big American university. It has so many facets that a clever mind can root up facts and aspects that justify every possible claim and ideal, and meet every possible criticism. If a university is generally thought a rich man's college or aristocratic and is stigmatized as such in some public way, the next week appears a mass of instances of utterly impecunious students who have worked their way, boarded themselves, and are ultra-democratic. If it is criticized as too large, there are a mass of well-worn arguments that size is of great advantage. If it is too small, then the advantages of little groups and few students to a professor are blazoned. If it is called utilitarian, behold a list of the size of the classes in Greek and in other humanistic and æsthetic lines are vaunted. If athletics is thought excessive, look at the grinds and the strenuous electives that are chosen. Indeed, every good thing is found and every bad thing is minimized and all honestly and all everywhere. As in an old sailing vessel, the ballast used to be made of big boxes full of refuse iron, broken chains, and anchors, laboriously moved from side to side to trim the ship according to the wind, so there are a mass of stock arguments and facts that are brought forward to meet every emergency. An institution which is assuming more and more of the features of an immense educational trust may be loudest and foremost in its official denunciation of trust methods in other departments. And so the merry whirl goes on; always "*Pereant qui ante nos nostra dixerunt*," which may be loosely translated, death or ostentatious ignoring of all those who said or did our good things before we did.

*Why Worry*, by GEORGE LINCOLN WALTON. J. B. Lippincott Co., Philadelphia, 1908. pp. 296.

It is very interesting to hear an experienced neurologist talk in this informal way. Neurotics who think they are all run down are all wound up. The ideal of being safe, well, may narrow the circle of both pleasure and usefulness like a disease. Worry is the disease of our age. It is connected with chronic indecision. If we think there is a fire in a stove it warms us; if we break a pane in a bookcase thinking it a window, we enjoy the fresh air. Faulty mental habits and fussiness were understood and their cure prescribed by the ancient Stoics who prayed for a tranquil mind, and would not labor to be either pitied or admired. "A merry heart doeth good like a medicine, but a broken spirit drieth the bones." Jealousy, cowardice, belittling, insistent thought, the New England conscience that ought to take lessons from near-do-wells, the feeling that we must be on time for everything, difficulty in making friends with the weather, interest in how we feel rather than what we do, exaggerated self-consciousness, that is always seeing ulterior motives, are all results of worry. In a storm at sea, we must remember that it is just as well to be eaten by fishes as by worms, that while a vessel may lose her bearings or strike an iceberg or rock, she may also not do so. Stage fright may be an obsession. These obsessions abound in children, who step on stones, avoid cracks, bite nails, count windows, and follow most of these abnormal

habits, which ought to be broken off. If they persist, an older boy will perhaps feel obliged to touch everything red or to touch nothing but the inside of bed sheets; for any of these may be coercive if they survive into adult life. Fussiness about the length of time our eggs are cooked, inability to sleep save in a sound-proof room, horror of certain noises, animals, foods, smells, crackling of a fire, great sensitiveness to criticism or ridicule, to new sensations, to change of habits, as wearing low shoes, respirators, dread of drums, tapping, going wild because people clear their throats or snore, retracing steps, all these are obsessions that may lead to ultimate break-down. A clergyman feared he had not greeted another on the street properly, others that they had not turned off the water, closed a vault, spelled aright, buttoned properly, put on a stamp. Others argue over the simplest proposition and many patients can out-discuss the doctor. All these are obsessions. A new medicine is often very effective for a few days on hypochondriacs. One allowed his hair to reach his waist, wears many underclothes and several blankets, and cannot extend his wrist from the bed clothes to have his pulse felt, cannot smoke a cigar since seeing the factory or drink without carefully inspecting the neck of the bottle for glass slivers. One enumerated a long list of ailments and was stunned when the doctor said: "What splendid health you must have to stand all these complaints." One always sits in church with the foot in the aisle to be ready to flee if there is a fire; another puts her money in the church box and in the car conductor's hand with a paper about it that she may not touch it; another would move things only with her elbows; the heart, tongue, and temperature are chiefly watched, perhaps the latter with a thermometer. Digestion and every tiny organic sensation is a danger signal. Young medical students fear the diseases they study. Eye-strain, probably, was the chief trouble of Carlyle's life, although he was, no doubt, a hypochondriac about his stomach. Neurasthenia sometimes especially affects business men who never gave a serious thought to health, home, family, art, or anything but money-making in their own life. Such men rush through Europe and never acquire the art of living with themselves as they are. One counts for a long time when he puts out the light at night until his eyes have grown exempt so that he would see a fire. "A worthy man will not insult me and no other can," and when enraged at others' blunders, "if he had our brain, he would have our job" are sedative thoughts. The best cure is children's books, working afield, getting next to nature. Sleeplessness is faulty mental habit. Vacations should come before we are exhausted. Indifference whether we sleep is the best way to put ourselves to sleep. There are many like George T. Angel, now eighty-four, who goes a week at a time with no sleep and for three months does not average more than two hours and who never had a good night's sleep but keeps well. When we feel that we must sleep now, we should say: "No matter, I can do it as well to-morrow night." Practise sleeping in any position. Nothing will be entirely satisfactory at any moment. Never think of things unpleasant after ten at night. Any one can stand what he likes, but only a philosopher what he does not like. "Why worry because the stork's legs are long and those of the duck short?" The most interesting of the occupation neuroses is the writer's cramp. One woman oversewed until she could only take short stitches. The golf arm is a case in point.

"Small habits well pursued betimes may reach the dignity of crimes." More than one sunbeam and life of the party is the crosspatch and fussbudget at home. "Will it never stop raining?" "Can't you see I'm busy?" "What *are* you doing?" "Whatever is is

wrong." One does not need brain to be a kicker—this the mule should tell us. Why not get happy when one is tired instead of cross? Exercise or a bath stops many a cold.

"Of all sad words of tongue or pen,  
The saddest are these—it might have been."

To this we add,

"Add this suggestion to the verse,  
It might have been a good deal worse."

The mock worry of the game is a good antidote for the real worry of life. As we grow old, we must not sit at home or form too rigid habits, but cultivate fads, flowers, botany. Parents get nervous about their children and always reprove them. Travellers are often great worriers. One gave up a European trip because he must wait six hours at Vienna—too long to be at the station and not long enough to put up at a hotel. The table worrier and fuzzer is one of the worst. Some are easily nauseated, give elaborate directions to the waiter, and consult physicians about their appetite when it is normal.

"The worry cow would have lived till now,  
If she had only saved her breath;  
But she feared the hay wouldn't last all day,  
So she choked herself to death."

It is a national obsession that no meal is complete without meat, and perhaps that we must eat regularly three times a day, instead of when we are hungry. Many fear they are becoming insane, dread elevators, fires, tunnels, thunder, panics, accident, poverty. Some say that the only difference between the sane and the insane is that the former can conceal their feelings and thoughts better. Autumnal melancholy "will also pass;" and so should dread of ridicule, criticism or comment. One dog has a passion to climb trees and often goes up six feet. Some of our maxims are neurotic, such as, "indomitable will," "no such word as fail," "never say die," "don't give up the ship," "room at the top," but they are too tonic for many children. So "what is worth doing at all is worth doing well," "never put off till to-morrow what you can do to-day," "look before you leap," need to be counteracted by less strenuous maxims: "what cannot be cured must be endured," "patient waiters are no losers," "a stitch in time saves nine." "If you want a thing done well, do it yourself"—this has caused many a breakdown. Some of these habits are just as accessible to mental treatment as swearing or free indulgence in food and drink. If we can restrain them a moment, something is gained. Such phrases as "—drives me wild," "can stand anything but this," "try, try again," "isn't this provoking,"—are sighs. The obsession to arrive makes us keyed up and fret. "Power through repose" is a good ideal. We must try to play the game of life with the cards that Fate gives us and accept her shuffle of them.

*The Rule of "Not Too Much,"* by H. E. O. HEINEMANN. 145 Lasalle Street, Chicago, 1908. pp. 160.

This author seems to represent the best possible defences that can be made for the open sale of liquor, and he has discussed many of these problems in the American Brewer's Review. He pleads for temperance, and thinks prohibition and total abstinence the most superficial ways of dealing with the liquor problem, "that the motive that leads men to drink is one of the best and not of a lowly nature, as is the prevailing opinion." The drinker wants to enlarge his conscious self, to live a life a bit better and on a higher plane than ordinarily. To remove the evils of the liquor problem, there must be a

substitute found. In the education of children, for instance, we must strengthen their will, and also we may point out "stupor, brutish mental indulgences caused by alcoholism." We must have cleaner, less highly seasoned and less adulterated food and drink, pay attention not only to what but how we eat. We must remember that intemperance in food is probably a greater evil than intemperance in drink. We must also remember that it is better to drink beer than whisky, that a great many of the ablest men of our day and of the past have drunk habitually with moderation and been the better for it and made the world better. We must weigh evidence, which seems incontestable, that although an immense amount of alcoholic drinks are consumed, there has been a steady diminution among civilized nations of the abuse of intoxicants, particularly of mild, fermented beverages. The sub-committee of the committee of fifty have attempted to suggest a minimum amount of drink that may be consumed. Doubtless the joy of living and a higher pitch of economic efficiency has, on the whole, been attained by nations who have indulged this craving, which is largely due to bad cooking and insufficient or innutritious food, and by quick eating.

*On the Training of Persons to Teach Agriculture in the Public Schools,*  
by LIBERTY HYDE BAILEY. Government Printing Office, Washington, D. C., 1908. pp. 53. (Bureau of Education Bulletin No. I, 1908.)

After proposing his problem, the writer deals with the means of training teachers in service, such as summer schools, institutions, lectures, correspondence, peripatetic teachers, the work of the Bureau of Agriculture. Then comes the training of new teachers in normal schools, high schools, separate and special foundations, agricultural colleges; and lastly the general outlook with an account of the normal work at agricultural colleges, Massachusetts, Illinois, New York, Mississippi, Maine, North Carolina, Connecticut and Washington.

*Emancipation. An Introduction to the System of Progressive Government.* By NORBERT LAFAYETTE-SAVAY. Knickerbocker Press, New York, 1908. pp. 161.

The author believes he has a special message to the world for he has discovered the way of solving social, political and economic questions. He believes his method can be put into immediate operation. He treats of the evolution of democracy and the changes it has undergone, their consequences and the remedies proposed, its chief faults and their causes and tells how he can bring about a new relation between the people and the government and a way to make the latter progressive, to improve the qualifications for office and modes of election, etc., under the direction of an international council.

*Juvenile Crime and Reformation including Stigmata of Degeneration,*  
by ARTHUR MACDONALD. Government Printing Office, Washington, 1908. pp. 339.

This is a report of the hearing of the bill (H. R. 16733) to establish a laboratory for the study of criminal, pauper and defective classes, before a sub-judiciary committee. It is a pretty good summary of Dr. MacDonald's studies in his field, treating of the decay of family life, crime and heredity, girl seizures, incendiaries, reform laboratory work on criminals with instruments, a study of Zola, stigmata of various kinds, anarchism, etc. There are nearly one hundred cuts of instruments and their applications, but most of these are well-known pieces of apparatus. It seems as if it ought to be said, although

we hate to say it, that the publications of this author illustrate a characteristic weakness of government science. Much of the content of this book is well calculated to impress congressmen who are laymen in psychology, but this part of it has little or no scientific value, although the author has proven himself capable of doing good work.

*L'Education de la Femme*, by M. C. SCHUYTEN. Octave Doin, Paris, 1908. pp. 458.

This distinguished expert in hygiene here brings together his views on the education of girls, which are presented on the basis of a careful study of the differences in dimensions, organs of sense, morbidity, etc. The third and culminating part of the book is on domestic education, in which everything, he thinks, should culminate. Such exercise as dusting, sweeping, scrubbing the floor, washing, ironing, are treated much on the same basis as similar exercises would be estimated in the gymnasium. Indeed, the kitchen, parlor, and bedroom work is about the most hygienic that can be conceived and probably far surpasses, on the whole, that of almost any other system of exercise yet developed. Domestic education, according to Schuyten, should include hygiene of the air, water, body, especially of women, epidemics, the way to treat accidents, elementary nursing and pharmacy.

*Literature and the American College*, by IRVING BABBITT. Houghton, Mifflin & Co., Boston, 1908. pp. 263.

This brilliant and scholarly book is made up of nine essays, five or six of which had been printed elsewhere. The themes are: Humanism; College and Democratic Spirit; Literature in Relation to the College and the Doctor's Degree; the Rational Study of the Classics, Ancient and Modern; On Being Original; and Academic Leisure. The writer deplores the tendency in college and university to subordinate literature to philology, although he recognizes the values of the historic method and the dangers of merely miscellaneous reading of the dilettante type. These are, he well says, the masculine and feminine aspects of the same movement and may even co-exist in the same person, and are both necessary to make the perfect humanist. He depreciates the fact that the "philological syndicate" has long been pushing forward men of its own kind until literature is de-humanized, and philological despotism is established in our colleges, partly due, this writer thinks to the tyranny of German methods. He well says: "I have known first-class men in both the ancient and modern field who have been literally driven away in disgust by the present requirements of the Ph. D. I have known others who have accepted these requirements but in bitterness of spirit." "The student humanistically inclined is likewise repelled from a literary career by the barbed-wire entanglements by which our philologists have obstructed its entrance." The pages of this writer are quite scintillating with *bon mots*, some of which are rather familiar to oldsters who have dabbled about in the field of literature, so that this suggests the youth of the author. Others are newly culled and chosen with great taste from a very wide range of reading, and still others are original—some of these are the best of all. We commend this book in the heartiest terms, first to professorlings in American colleges who teach philology and who have little sense or knowledge of literature; secondly, to high-school teachers of literature who have been demeaned by these academic influences; thirdly, to university students in these depart-

ments as well as in education who have been scanning the heavens these many years for some signs of relief.

*English Composition*, by CHARLES L. HANSON. Ginn & Co., Boston, 1908. pp. 241.

Here is still another book in a field already immensely overcrowded with books, although this, like the rest, has certain new features. Its purpose, the world will be glad to know, is "to present the main principles of English composition in so simple and practical a form that the pupil will grasp them easily and will apply them naturally in his daily work." The pupil is told that to acquire skill, he must not be satisfied with doing the assigned tasks, but must always strive to improve his speech and writing. In chapter I, the author treats choice of speech, paragraph, sentence, spelling, letter writing, kinds of sentences, the exact, the forceful word; and in part II, he tells us about narration, description, exposition and argument. Books like this, to our thinking, tend to degrade teaching in this field. The teacher who faithfully follows out all the directions and uses all the matter here proposed does not need and, indeed, would be embarrassed by much learning of his own, and originality in method would be still more embarrassing, with no doubt whatever that this method fits the author as his glove fits his hand; but the point is, every teacher should develop a method just as individual, all his own, and we must recognize that it is only those of a low order of intelligence who will really be helped by such work.

*Unterrichtslehre*, von HERMANN ITSCHNER. Quelle & Meyer, Leipzig, 1908. pp. 332.

This author conceives instruction as the unfolding of formative energy. He first enjoins the teacher to respect the real worth of the children, tells us that personality is the ideal of man and also in what its essence consists, has a definition of the soul that is perhaps sufficiently imposing, treats of the duties of society to growing persons. Then, as to the means of instruction, there is the home, speech, art, and all the special departments. Under style, are included art, science, mode of teaching, and the usual Herbartian patter, and finally an appendix. The writer discusses the claims of our time upon education. He urges that capitalism deforms personality. This volume is called the general part; but it need not distress us that there is more to come, for it will not be indispensable to read even this in order to be up to the times in education.

*Internationalism*, by WILBUR F. CRAFTS. International Reform Bureau, Washington, D. C., 1908. pp. 86.

This book contains a long list of topics for collegiate and interscholastic debates with memoranda for working up the various subjects. The chief of these may be grouped under the following heads: the concert of Europe in war; nineteenth century treaties; arbitration and the Hague; laws of international commerce; philanthropy; legislation for markets and morals; international action on gambling needed, also regulations of immigration and Sunday recognition. The author's purpose as superintendent of the International Reform Bureau is to turn the thoughts of young collegians in these directions.

*Psychologische Erörterungen vur Begründung eines wissenschaftlichen Unterrichtsverfahrens*, von RUDOLF JÖRGES. Theodor Weicher, Leipzig, 1908. pp. 144.

The basis of the thought process is reproduction, memory, association, and psychic energy, which are first described. Then comes the

psychological determination of ideas, in the act of feeling, its kinds, and the sources of error. The author then investigates the processes involved in reproduction and their energy, illustrated on concrete classroom problems. He then passes to the worth and motive of reproduction in learning foreign languages—how rules are evolved and ordered. In the second part of the book, the author gives practical examples illustrating his theories from Latin, French and German, with a discussion of the psychology of learning vocabularies, and criticises twelve other authors. The work is interesting for those teachers of language who wish to go into the psychological processes of learning them.

*The Common Sense of Socialism*, by JOHN SPARGO. Charles H. Kerr & Co., Chicago, 1908. pp. 184. (International Library of Social Science.)

This vigorous writer here discusses in successive chapters: what is the matter with America? the two classes in the nation; how wealth is produced and how it is distributed; the drones and the bees; the root of the evil; from competition to monopoly; what socialism is and what it is not; objections to socialism answered; what shall we do then? a suggested course of reading in socialism; how socialistic books are published.'

*The Threshold of Music*, by WILLIAM WALLACE. Macmillan & Co., London, 1908. pp. 263.

This is a very valuable book. It discusses primitive conditions, the Hellenic, Roman, Gothic idea; harmony in embryo; drama and harmony of the cross-roads; Luther and his art; founding of modern music; education by expression; present conditions; and heredity and environment.

*Stories of the Struggle*, by MORRIS WINCHEVSKY. Charles H. Kerr & Co., Chicago, 1908. pp. 170.

These are fifteen stories of despotism, some of them very realistic and a little suggestive of Ambrose Bierce's "Tales of Soldiers and Civilians." These fifteen, however, are told with little art but with immense realism.

*Goethe's Torquato Tasso*, edited by JOHN FIRMAN COAR. Ginn & Co., Boston, 1908. pp. 327. (International Modern Language Series.)

*Der Schimmelreiter*, by THEODOR STORM, edited by JOHN MACGIL-LIVRAY and EDWARD J. WILLIAMS. Ginn & Co., Boston, 1908. pp. 331. (International Modern Language Series.)

*Karl Marx, Biographical Memoirs*, by WILHELM LIEBKNECHT. Tr. by Ernest Untermann. Charles H. Kerr & Co., Chicago, 1908. pp. 181.

*The Russian Bastille*, by SIMON O. POLLOCK. Charles H. Kerr & Co., Chicago, 1908. pp. 110.

*Principles of Secondary Education—a Text-book*, by CHARLES DE GARMO. Macmillan Co., New York, 1908. pp. 200. (Vol. II, of Instruction.)

*The Technic of English* by OSCAR SCHLIEF. Published by the author, 1748 N. Roth St., Philadelphia, n. d., 1908. pp. 45.

*Report of the Commissioner of Education for the year ending June 30, 1906. Vol. 2. Whole No. 275.* Government Printing Office, Washington, 1908. pp. 645-1308.

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New York State Education Department, Albany, 1908. pp. 674.
- Who's Who in America 1908-1909.* Edited by ALBERT NELSON MARQUIS. A. N. Marquis & Co., Chicago, 1908. pp. 2400.
- Vocabulary and Word-Building Tests,* by GUY MONTROSE WHIPPLE. Reprinted from the Psychological Clinic for March, 1908, Vol. 15, No. 2, pp. 94-105.
- A Memory-Test Note-Book,* by GEORGE H. BROWNE. Ginn & Company, Boston, 1907. pp. 56.
- Zoölogy,* by HENRY EDWARD CRAMPTON. The Columbia University Press, New York, 1908. pp. 36.
- Men's Educational Reconstruction of Nature,* by EDGAR JAMES SWIFT. Reprinted from the Popular Science Monthly for March, 1908, Vol. 72, pp. 269-282.
- Human, All Too Human,* by FRIEDRICH NIETZSCHE. Tr. by Alexander Harvey. Charles H. Kerr & Company, Chicago, 1908. pp. 182.

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#### NOTE

It has been urged that students in college with Latin preparation do better than those whose High School language had been German. The records of Lake Forest College, however, show the contrary. It has also been urged that Latin is better than German as a preparation for work in English. A study of the marks and grades of Lake Forest students for several years shows that a year's German helps the student more in English than a year's Latin.

Again, students whose language preparation has been German, are more likely to stay through the college course, than those whose language has been Latin.

Lastly, it has been thought that the better social classes took the Latin, but Lake Forest shows that the more Latin and the less German a student has, the more likely he is to need financial assistance.

# THE PEDAGOGICAL SEMINARY

Founded and Edited by G. STANLEY HALL.

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VOL. XV

DECEMBER, 1908

No. 4

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## SOME NEUROLOGICAL AND PSYCHOLOGICAL ASPECTS OF SHOCK<sup>1</sup>

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By WILLIS L. GARD, PH. D., late Fellow in Psychology,  
Clark University

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<sup>1</sup> The writer wishes to acknowledge his indebtedness to Pres. Hall for suggesting the topic and giving valuable directions; to Prof. Sanford for most valuable criticism; and to Prof. Burnham and Dr. Theodore Smith for many important suggestions.

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### I. INTRODUCTION

The word "shock" is one which is loosely used for the disturbing effects both bodily and mental of almost any sudden and intense experience. With such a wide range of signification it is hardly to be expected that all the cases to which the term has been applied can be reduced to a single homogeneous class, and in the following notes that has not been attempted. The effort has been rather to gather together examples of the different sorts of conditions to which the word is applied with something of their antecedents and consequences, with a view to a first tentative survey.

It has long been known that stimuli continuously applied or slowly varied produce little or no effect. It is also well known that sudden changes, both positive and negative, if of any considerable amount, are very efficient excitants, as for example, the sudden withdrawal of a light, rapid alteration of temperature, an unexpected noise, or the sudden cessation of a monotonous sound. So far as known some alteration in the continuity of stimuli is necessary for perception and, in all probability, also for consciousness.<sup>1</sup> Within certain limits, sudden alterations in the intensity of stimuli are necessary for normal psychological life. Below the lower limit of change, we have no response; above the upper limit, especially when the stimuli are also intense, we have mental and physical disturbances.

For the production of shock a tolerably intense excitation, as well as sudden change, is usually necessary and it is, therefore, with those forms of excitation that are at the same time both sudden and intense that these notes are especially concerned. A common element of intense and sudden stimuli, and one of great importance, is the difficulty of making the complete pre-adaptations which are necessary for normal and well co-ordinated reactions. The absence of these leads to, or, at any rate, intensifies the emotional and motor disturbances.

### I. INTENSE STIMULI IN REACTION-TIMES

A special case showing the importance of this factor of pre-adaptation is to be found in the laboratory experiments on

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<sup>1</sup> Cf. Spencer: *Principles of Psychology*, Vol. I, Pt. ii, Chap. 2. For a biological aspect of shock see De Vries, *Evolution and Mutation*, *Monist*, Vol. XVII, 1907, p. 13.

reactions to stimuli of considerable intensity.<sup>1</sup> A maximum reaction time is usually found when the stimuli are of minimal intensity. As the stimuli rise above the threshold, the reaction time at first decreases rapidly, then slowly or not at all. When, however, the stimuli become very strong, the time of reaction is again lengthened materially. This last is evidently an inhibitory phenomenon connected with shock or the emotion of fright, and the disturbance of the co-ordination proceeding from these. It is also a well-known fact of attention that when an impression has reached a strength favorable for apperception a further increase produces no further acceleration in its comprehension. Within certain limits weaker and stronger impressions are clearly and distinctly apperceived. When, however, the stimulus is too strong the existing condition of attention is not adequate to the impression.

## 2. GRADUAL CHANGES IN STIMULI

In this connection, also, we may give a few words to the experimental work done on the effect of gradual change of stimuli. Fontana applied pressure to an excised motor nerve until it was crushed without causing its muscle to contract. Afanasieff and Rosenthal increased and decreased the temperature stimuli applied to a motor nerve with such regularity that no action resulted. Ritter found that the electrical current has no effect if the density of the current is made to vary slowly enough. Acid and alkaline stimuli have been applied with such uniformity as to kill the tissue without exciting movement.<sup>2</sup> Frogs have been placed in water and the water heated so slowly as to produce death without the animal moving. Sedgwick,<sup>3</sup> experimenting with frogs, came to the following conclusions: If the heating be sufficiently gradual, no reflex movements will be produced even in the normal frog. The same was observed in the case of a reflex-frog, if the change was sufficiently gradual. Both the reflex and normal frog made violent movements when the rise in the temperature was somewhat more rapid. The author also concludes that death was not due to a diminished irritability of the spinal cord by reason of the heat carried into it by the blood. Nervous protoplasm must be altered rapidly in order to secure excitation and it is impossible for organs with a protoplasmic basis to avoid this law.

<sup>1</sup> Wundt: *Grundzüge der Physiologischen Psychologie*, 5th ed., Vol. III, 428-430.

<sup>2</sup> Cited by Hall and Motora, *Am. Jour. Psy.*, I, 72 ff.

<sup>3</sup> Studies from the Biological Laboratory, Johns Hopkins Univ., 1882, p. 385.

Hall and Motora a number of years ago made a series of experiments on dermal sensitiveness to gradual pressure changes<sup>1</sup> and similar experiments have since been made by others. In such experiments the acts of comparison and judgment must go on during the process of the change. It was reported by the subjects in the experiments of Hall and Motora that the mind did not have or keep at any time an image or feeling of continuous increment or decrement. Continuity here is derivative and inferred from the graduated series. Gradual changes, though great in amount, could only be ascertained by indirect and often very circuitous inference. For each individual there is a practical threshold of change as well as of intensity, which relieves the mind from many distractions and irrelevancies and favors concentration of attention.

Experiments in which a point was moved over the surface of the skin<sup>2</sup> revealed the same general relations. It has been found possible to move a point so slowly over the surface of the arm that no motion is perceived.

All these facts go to show that stimuli to be effective must have an adequate intensity together with an adequate rate of change, the latter determined in some degree by the experience of the organism. But this limit may be exceeded both in intensity and in rate of change, with imperfect perception, over-excitation or shock as the result.

## II. THEORIES OF SHOCK AND CONDITIONS THAT INFLUENCE ITS INTENSITY

### I. SOMATIC AND PSYCHIC SHOCK

On the side of *causation* shocks may be grouped roughly under two general heads, those in which a somatic factor is prominent and those of more purely psychic origin. The shocks of the first sort result from injuries and surgical operations of various kinds. The shocks of the second sort result from sudden emotional disturbances such as the receiving of good or bad news, disappointment or fright on seeing an accident. In reality, however, a psychic factor is very often present in the somatic cases, and on the side of *effects* it is not easy to distinguish the two sorts. Both produce extreme nervous prostration, lowered vitality, enfeebled circulation, disordered metabolism and defective elimination. The vitality of the phagocytes seems to be lowered and the catabolic action of the nerve centres is exaggerated. There is an excessive increase in the waste products. In a word both somatic and psychic shocks result in similar pathological disturbances of the

<sup>1</sup> *Am. Jour. Psy.*, Vol. I, pp. 72 ff.

<sup>2</sup> Hall and Donaldson: *Mind*, Vol. X, 1885, pp. 557-572.

mind and body. People who do not receive any local injury in an accident, but who do experience a serious psychic shock, often suffer from prolonged neurotic disturbances. In such cases grave symptoms may develop and recovery is delayed. The psychic shock has caused a derangement of metabolism, which in turn reduces the nervous tone. The patient is, by this process, thrown into a vicious circle. Yet in spite of this similarity of symptoms, frequent combinations, and perhaps fundamental identity in severe cases, it has seemed advisable to treat the two to some extent separately, and we shall consider first shocks of physical and afterwards those of mental origination.

For detailed accounts of cases of shock due to physical injuries it is only necessary to refer to the copious literature furnished by surgeons and attending physicians in the case of accidents from which it is unnecessary that we should quote here. Let us rather consider the several theories of shock which have been based upon clinical observation.

## 2. THEORIES OF SHOCK

a. *The Hemo-Pathological Theory.*<sup>1</sup> Gross would say that shock depresses the vital powers because of a loss of innervation. Agnew asserts that the determining cause of shock must reach that portion of the nervous system from which the heart and lungs receive their motor innervation, for the feeble action of those organs is one of the first phenomena of that condition to be observed. Blum believes that shock is a reflex irritation of the pneumogastric nerves, which causes the arrest of the action of the heart. Schneider holds a theory of vaso-motor paralysis. There is at first a contraction of the blood vessels, soon followed by a dilatation. This latter causes the veins to fill with blood and prevents much of it from returning to the heart. The heart then becomes unable to force this diminished supply through the arteries. These writers base their theory of shock on the classical experiment of Goltz performed in 1870. He tapped the mesentery of a frog with the handle of his scalpel and observed that the heart was suddenly stopped. In a few minutes the beating was resumed, but there was a diminished flow of blood in the aorta. In this case there was a vaso-motor paralysis caused by mechanical violence.

Recently Crile has performed two long series of experiments to ascertain the effects of surgical shock. He has been able to demonstrate that all shock is accompanied by a high blood pressure at first which is immediately followed by a low blood pressure and perhaps death. He asserts that the source of

<sup>1</sup> Crile: *Surgical Shock.* Lippincott, Philadelphia, 1899. pp. 9-13.

shock is the paresis of the vaso-motor mechanism. This paresis interferes with the blood pressure and the general circulation, resulting subsequently in disturbance of a reflex and nutritional sort. By the use of the Riva-Rocci sphygmomanometer the blood pressure is found to drop rapidly some time before any disturbance in the circulation can be detected through the pulse. This drop in the pressure of the blood is the warning signal of approaching shock. This fact has been demonstrated many times by surgeons in practical work.

Brewer<sup>1</sup> commends this view and asserts that all recent observations point to the fact that surgical shock is due to a breaking down of the delicate vaso-motor mechanism which controls the dilation and contraction of the capillaries, and the capillaries rule the blood pressure in the body. These observations show that the muscles of the heart are not exhausted. They do not demand stimulation. There is no lack of power in the heart to drive the blood through the arteries. But the dilation of the capillaries causes an accumulation in certain parts of the body and causes a disturbance in the circulation. The blood does not return to the heart and its action is disturbed by the lack of blood on which to exert its force. But the capillaries are already over stimulated and exhausted. Crile, then, believes that shock is a vaso-motor dilation owing to a paralysis of the vaso-motor nervous mechanism.

b. *The Neuro-Pathological Theory.* Groenigen proposed this theory and its pith is found in the following quotation which he makes from Astly Cooper: "Extensive injuries cause death by their sympathetic influence and the great shock on the nervous system, even if there be no vessel reaction nor inflammation." According to this theory there is a breaking down of the nervous elements. There is a consumption of energy and probably a disarrangement of the molecular particles. It is well known that there is a chemical change in the nerve elements and a decrease of irritability after excessive stimulation. The degree of exhaustion is proportional to the duration and intensity of stimulation. In the highest degrees of irritation all sensibility is destroyed either temporarily or permanently. Intensive light blinds and excessive sound deafens. If the kidneys of an animal are pressed, there is at once a paralysis of both hind limbs and a loss of reflex action in them. This continues for some time after the pressure ceases. Groenigen argues that this condition was brought about by the violent irritation of sensory nerves, which caused paralysis of the motor centres in the spinal cord, an exhaustion

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<sup>1</sup> Brewer: Proceedings of Harvard Med. So., *N. Y. Med. News*, June, 1903.

of the reflex centres and also a paralysis of the automatic centres of the brain.<sup>1</sup>

The consuming of the nervous energy at any moment may cause a violent and sudden irritation of the peripheral or sympathetic nerve fibres spreading to distant points and eventually producing general exhaustion or unconsciousness. The best confirmation of this theory is the work done by Hodge<sup>2</sup> on the microscopical alterations in nerve cells at rest and in fatigue. He found that the nucleus of nerve cells, fatigued by direct stimulation or ordinary work, decreased in size, became irregular in contour, and stained darker. There was a shrinkage in the cells of the cerebrum and of the cerebellum, with an increase in the pericellular lymph-spaces. The cells of the spinal ganglia decreased in size and showed vacuolation.

Warren adds this sentence in comment: "These interesting results seem to throw new light upon the condition of the ganglia of the cord and medulla in the condition known as shock, and render the supposition highly probable that in this profound disturbance similar changes may be found which may gradually disappear after an interval of rest."<sup>3</sup>

To summarize Groenigen's<sup>4</sup> view, shock is not the consequence of an excitation of the vagus or the effect of a simple paralysis of the heart. All reasons brought forth in the support of this view are untenable and contradict directly the phenomena of shock. The hypothesis that shock is the result of a contraction of the small arteries is in want of proof. The same is true of the assertion which refers it to the change in the composition of the blood. The only tenable and comprehensive hypothesis is the one which addresses itself to the entire territory from which the phenomena, coming into consideration, arise. Accordingly shock is an exhaustion of the medulla oblongata and the spinal cord—an exhaustion which results from the excessive irritation.<sup>5</sup>

In some cases, especially when there are wounds of the head, fine anatomical changes in the nerve substance take place.

<sup>1</sup> Crile: *Surgical Shock*. Lippincott, 1899, pp. 9-13.

<sup>2</sup> Hodge: *Changes in Nerve Cells*. *Journal of Morphology*, Vol. VII, 1892, pp. 158-159.

<sup>3</sup> Warren: *Surgical Pathology and Therapeutics*. Saunders, Phil., 1895, p. 285.

<sup>4</sup> Groenigen: *Ueber den Shock*. Wiesbaden, 1885, p. 263 *et seq.*

<sup>5</sup> Meltzer: Johns Hopkins Press, 1900, pp. 135-151, has found that the shaking of the red corpuscles of the blood produces an injurious effect upon them. The effect was noticed soon after the shaking had ceased. The destruction of the red cells is due, the author affirms, to a molecular shock and not to a gross injury. It may be asked why excessive excitation would not have a similar effect on the nerve cells.

This is by Strümpell connected with shock, and Bruns<sup>1</sup> has found in man finely scattered spots of degeneration in the vicinity of the large bruised places of the medulla. In other cases arterioscleroses are developed especially in the vessels leading to the brain. Some neuroses may appear, however, without any material changes in the nervous system resulting from the disturbances.<sup>2</sup>

Henderson<sup>3</sup> in his experiments has come to the following conclusions: The development of shock in surgical operations and injuries is not dependent upon the extent of the injuries and the intensity of the stimulations of afferent nerves, but upon the rate of pulmonary ventilation. He presents the hypothesis that acapnia is the cause of surgical shock. Acapnia is the cause of the disturbance of the circulation and of the nervous system and explains the cessation of respiration in apnoea vera. There is a sudden diminution of CO<sub>2</sub> in the arterial blood which probably acts on the centres of the spinal-bulb, and increases the heart-rate up to the point of cardiac tetanus. The prevention of acapnia by artificial respiration prevents the development of shock. This was found to be true even when the period of observation lasted all day.

c. *Amœboid Movements of the Neuroglia Cells.* Erichsen in 1868 urged that there was a disarrangement of the molecular structure of the spinal cord and that there was no alteration in the blood supply. This was a pioneer explanation in a new field and was accepted as reasonable for a number of years. Hodges, however, in 1880 denied the pathological entity theory of Erichsen and suggested the possible functional character of many of the symptoms. In recent years there has been much controversy among the neurologists regarding the anatomical changes that take place in a condition of shock.

One of these current theories is based on the supposed amœboid movement of the neuroglia cells.<sup>4</sup> Amœboid movements have two phases, one of expansion and the other of contraction. In the first condition the actual amœba changes its place, takes food, and contracts when it is touched, jarred or otherwise stimulated. A strong thermal, chemical, or electrical stimulus produces, however, a general contraction with the result that the animal presents but a small surface to danger.

The neuroglia cells of the gray substance show all stages of

<sup>1</sup> Bruns: *Die Traumatischen Neurosen.* Wien, 1901. p. 28.

<sup>2</sup> See Marinesco, *Lésions produites sur la cellule nerveuse par l'action directe des agents traumatiques.* *Revue de Psychiatrie et de Psychologie Expérimentale.* Tome XII, Mai, 1908, pp. 177-193.

<sup>3</sup> Henderson: *American Journal of Physiology*, Vol. XXI, pp. 126-156.

<sup>4</sup> Hall: *Am. Jour. Psy.*, Vol. VIII, pp. 198-201.

retractions and relaxation. In the former case the protoplasm in the cell body increases, the main processes grow short and thick, and the secondary processes vanish. These contractile cells are found most abundantly in the molecular layer. Here, also, the fibrillar contacts of the specifically nervous cells are thickest. In the relaxed state the processes of the neuroglia cells pass between the tips of the dendrites of the nerve cells and thus break their mutual contacts. In the contracted state the protoplasm of the secondary processes of the neuroglia cells is retracted and a contact is made again between the tips of the dendrites. The neuroglia cells, by their movements, become automatic, shunting and isolating agents. In case of a vigorous contraction of these cells new connections may be made and old ones are perhaps broken. On this basis, Hall<sup>1</sup> has suggested that new associations are formed and monoideistic concentration of attention appears. This theory seeks to give a physical basis for all mental activity, both normal and abnormal. It seeks to account for sleep, fatigue, insistent ideas, confusion and all other mental phenomena. Everything is connected with the contractions and relaxations of the neuroglia cells. Hall suggests that if movements like those above do attend normal psychical activity, we are surely justified in inferring that strong shock, which is the most drastic of all experiences, must greatly increase them. The movements may cause a change which obliterates some associations and intensifies others and breaks up old ones. The method of reacting may be changed, and a basis laid for many disorders such as impulsive acts and imperative ideas. The wrong or even antagonistic muscles may be innervated. The vaso-motor and the splanchnic nerves may be disturbed, stuttering, sudden rigidity, exhaustion and paresis may appear. The brain may have been modified by these strong and sudden experiences, and become responsive to particular forms of shock.<sup>2</sup>

While the assumption of the movement of neuroglia cells would explain many and perhaps all phenomena of shock, yet the anatomical evidence for these movements is not very strong. In fact, Schiefferdecker<sup>3</sup> denies that there is any movement in the neuroglia cells. He admits the possibility of movements in the contact granules of the dendrites, but without signifi-

<sup>1</sup> Hall: *Am. Jour. Psy.*, Vol. VIII, p. 200.

<sup>2</sup> Cajal and others have suggested that the free terminations of the nerve cells themselves have power to perform ameboid movements and in sleep or during shock by their retraction break the connections with neighboring cells, thus bringing about actively a result which is produced in them passively by the movements of the neuroglia cells if the hypothesis just considered is correct.

<sup>3</sup> Schiefferdecker: *Neurone und Neuronenbahnen*. Leipzig, 1906. pp. 237 *et seq.*

cance for the interconnection of the nerve cells. The forms which are observed are probably important only for metabolism of the cells and the question of movement in the contact granules should itself be left open, though he is, at this time, inclined to the opinion that there is no movement. But the work of Goddard<sup>1</sup> seems to confirm the amoeboid movement theory. He found that, in sleep, the contact granules were absorbed into the dendrite; but in the active state, the granules spread out on stems. In rest the dendritic processes become varicose and the protoplasm seems to flow together, thus breaking the connections. Recently Harrison<sup>2</sup> has shown that the developing nerve fibre retains its amoeboid activity at the distal end. These amoeboid movements of the nerve cells in the embryo would, at least, render more plausible the above theory.

d. *Disturbance of the Synapse.* The recent work of Sherrington<sup>3</sup> throws some light on this problem. He has found that spinal shock appears to take effect only in the aboral direction. Sections made below the brachial enlargement disturb the upper limbs little or not at all. Transections made at the lower edge of the fifth cervical segment result in very little or no depression of the phrenic motor cells even momentarily. The depression is profound on the aboral side of the transection. The brain is very little disturbed and perhaps not at all by the cutting off of the stream of centripetal impulses going to the encephalon from the cutaneous, articular and muscular sense organs of the tail, limbs, trunk and neck, and from the viscera. None of these impulses can now receive conscious or subconscious elaboration. The animal directs his gaze steadily on things seen through the window. If the transection take place below the brachial region, the animal may amuse himself by catching flies. It has been observed that in the case of certain worms when cut in two suddenly, the head end goes on undisturbed, while the rear end is violently contorted. The aboral direction of shock appears to be universal in the nervous system. When, however, the transection is made as far forward as the first cervical level there is a tendency for the animal to drop off rapidly to sleep. This is perhaps due to the fall of blood pressure and body temperature. The head does not participate in the shock, but it does participate in the lowered pressure of the blood after transection in the front of

<sup>1</sup> Goddard, H. H.: *Journal of Comparative Neurology*, Vol. VIII, 1898, pp. 245-247.

<sup>2</sup> Harrison, R. G.: *American Journal of Anatomy*, Vol. VII, pp. 116-118.

<sup>3</sup> Integrative Action of the Nervous System, Scribner, 1906, pp. 250-248.

the second thoracic level. Shock, however, is not entirely due to the fall of arterial pressure.

It is the number and character of the descending nerve paths through which the lesion breaks that determines the shock resulting from trauma. Spinal shock is not a phenomenon of inhibition. Reflexes during the depression of spinal shock do not resemble those of inhibition so much as those of fatigue. The scratching reflex under shock depression has the same characteristics as reflexes when the animal is very tired, in fact, almost exhausted. Conduction along the paths of the reflex-arc is rendered difficult and uncertain. *This would suggest that there is a loosening of the connections of the links forming the neuron chain of the reflex-arc.*

In brief, Sherrington does not attribute shock to irritation resulting from trauma nor does he believe that it is a phenomenon of inhibition. It results from the rupture of certain aboral conducting paths; but the definite paths have not yet been made out. He has also shown that spinal shock is most effective on those tissues which waste most when the synaptic nervous system is destroyed. In most cases the skeletal muscles are involved. The primitive diffuse nervous system, the nerve net, is not so deeply influenced as the visceral and vasomotor systems. The organs on which shock falls least heavily are those which suffer least even after extirpation of the spinal cord itself.

Drawing from the best evidence at hand, we may say in summary that shock seems to cause physically an excessive catabolic action of the nerve cells, resulting in an alteration of their nutritional condition or in some chemical change in the substance of the axis cylinders. The excessive stimuli may change the conductivity of the synapse or cause movements in the neuroglia cells or dendritic processes.

e. *Prince's Theory.* So far we have been considering chiefly shocks due to bodily injuries, though, as we have said, the bodily and mental results are, in most cases, inextricably mingled. In the present section, we shall take up very briefly shocks due to psychical causes.

Prince<sup>1</sup> believes that the real causal factor of accident neuroses is the psychical or emotional element. He believes that the physical concussion plays a part only in intensifying the emotional effect. A sudden noise close to our ear startles us. But if the noise is accompanied by a slap on the shoulder, the effect is increased. For the psychical factor of shock to become effective, it is necessary that there be a certain unpre-

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<sup>1</sup> Prince: *Boston Medical and Surgical Journal*, Vol. XXXVII, pp. 392-394.

paredness of the mind. Prince has made inquiry into the consequences resulting from blows received in playing football. He finds very few cases of accident neuroses credited to injuries received while engaged in the game.

There are two reasons why traumatic neurasthenia or hysteria does not follow from concussions of this sort. In the first place there is an intense mental excitement and concentration of thought upon the game. These dominate the mind of the player and crowd out all other forms of mental excitement. In the second place the player goes into the game with a mental preparedness, or "negative expectation." He is perfectly well aware that an accident may result and has made up his mind to it. No surprise or terror is present just before or at the time of the accident. He feels sure that there is little or no danger to life. But in railway accidents, earthquakes, explosions, cyclones and conflagrations the situation is entirely different. The mind immediately before the event is wholly unprepared for it; and in addition past experience and the reports of others have led to the expectation of horrible consequences. There is a critical moment of expectation in every such disaster. A previous auto-suggestion becomes effective, and on the first intimation of an accident this idea, formerly prepared, arises and with it the terror and shock.

Page<sup>1</sup> in discussing shock resulting from railway accidents asserts that its effects are much more serious if the injury is accompanied with fear. The person injured in a railway accident frequently suffers more serious collapse than one seriously injured by other means. The suddenness of the accident, the helplessness of the individual, the great noise, the hopeless confusion, the cries of the injured, all aid in producing a profound impression on the nervous system. The principal feature in railway injuries is the combination of the physical and mental elements of causation of shock in such a manner that the psychical element is always present in its most violent form.

*3. Conditions Influencing the Degree of Shock.* The number of reflex symptoms following a case of trauma depends on the specialization of nerves and their abundance in the injured part. Wounds of the skin cause more shock than deep wounds of the muscles or bones. Shock is likely to be extensive when a large superficial area of the skin is injured, even though the wound does not go very deep. Wounds of the nervous system and manipulations of the nervous substance are likely to be followed by considerable shock. Interferences in the pyloric region of the stomach and the neighborhood of the gall-bladder produce serious shock.

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<sup>1</sup> Page: Injuries of the Spine and Spinal Cord. Blakiston, 1885, 2nd, p. 190.

General conditions are also important. The same injury or fright produces different degrees of disturbances in different individuals and in the same individual at different times. Women as a class are less susceptible to shock than men. Persons inured to suffering or confined to the bed for a long time, or under the influence of certain drugs, seem to have acquired a certain torpidity of the nervous energies and are less susceptible to shock than persons whose nervous systems are in a high degree of activity.

The apathy of the aged and of those in extremity from exhausting disease, has often been remarked. Their store of nervous energy is too low to cause perceptible agitation.

Temperament is said to modify the manifestations of shock. Phlegmatic and lymphatic temperaments resist it. Sanguine and mobile temperaments are liable to it in the highest degree. Mental conditions also modify it. Mapother has pointed out that the Saxon and Celtic races differ in their power to withstand shock and he believes that the statistics show that the English bear severe operations better than the Irish. But the secondary complications are more frequent in the first. A comparison of the German and French statistics show that the nervous Celts have a higher percentage of cases of death after operations than the Germans. Other influences, however, may well have played a co-ordinate, if not predominant rôle here. According to Brinton, the mentally elastic Irish and the more phlegmatic Germans, bear operations better than the restless Americans.<sup>1</sup>

Fear, despair, despondency, disappointment, depressed mental states of any kind aggravate it. While hope, joy, cheerfulness, glad expectations, and success, diminish its effects.<sup>2</sup> Shock is modified by age. While the young bear injuries better and usually rally more readily than older persons, and organic diseases in the aged often make their effects serious and prolonged in the absence of disease, the duller nervous susceptibility of those advanced in years may diminish their liability to shock.

The effects are always most marked, as Jordan believes, where nerve functions are highest in character and most intense in action.<sup>3</sup> The maximum is produced in the adult, whose will and ideas predominate over all the other functions. The

<sup>1</sup>Cited by Groenigen. *Ueber den Shock*. Wiesbaden, 1885. p. 100.

<sup>2</sup>This is especially true in the case of psychic shock. Toulzac (*Rire et Pleurer Spasmodique*, Paris, 1901. pp. 19-20.) cites the following incident. A group of boys and girls from nineteen to twenty-four years old were seated together when news was received of the death of a friend of the group. They looked at each other for a second and then broke out into a laugh. It was some time before they could realize the seriousness of the news.

<sup>3</sup>Jordan: *Surgical Inquiries*, London, 1873. 2d ed. p. 12.

minimum is found in the very young and in the feeble and old. Strong and healthy men die from a crushed knee, while others, bed ridden and worn out with pain, survive the amputation of the thigh. The lower the nerve force, the less the shock. Before birth, a foetus will survive amputation of all the limbs; not so after birth. It has been found difficult to kill a hibernating animal. Miners and farm laborers, with somewhat blunted nerves, endure shock better than the skilled artisans. People, then, vary a great deal in the amount of unusual excitation, both somatic and psychic, they can endure without pathological consequences. This amount seems to have some relation, as we have seen, to age, sex, health, nervous energy and temperament. That degree which is injurious to one person, may be even enjoyed by another. And this fact has, no doubt, a high pedagogical as well as diagnostic value.

*Reactions of Children to Sudden and Intense Stimuli.* It has already been stated that children are less subject to traumatic shock than grown people; but observations show that they are more exposed to psychic shocks resulting from frights and strange phenomena. Sully<sup>1</sup> finds that visual sensations do not produce the strong shock effects on the nervous system that auditory sensations do. Loud and voluminous noises like the slamming of a door, give a shock to little children which is often the progenitor of excessive fear. The noise of a factory, the whistle of a steamship or a passing train, often causes great alarm or quite upsets a child. Sully cites the following instances. The bleating of the sheep caused a little girl of nine months to seek shelter against the nurse's shoulder; a boy of four months cried when he first heard a piano; a child of five and one-half months screamed when a banjo was played; and Preyer's boy at sixteen months was alarmed when a tone was produced by rubbing the edge of a tumbler. Swift<sup>2</sup> also found that for the first fifty days babies are very sensitive to auditory stimuli. Darwin found that his child, at sixty-six-days, was startled violently, frowned, looked frightened, and cried, as a result of hearing a loud sneeze. An hour later the child was in a state that would be called "nervous" in an older person. For some time every slight noise made him start. About the same time he was caused to start by the sight of an object; but for a long time noises made him start more than did visual impressions.<sup>3</sup> The unexpected and unknown play an especially important rôle in the child's

<sup>1</sup>Sully: *Studies of Childhood*. Appleton, N. Y., 1896. p. 194.

<sup>2</sup>Swift: *Am. Jour. Psy.*, Vol. XIV, 1903, p. 247.

<sup>3</sup>*Mind*, Volume II, 1877, p. 286.

experience of shock. Sounds coming from apparently silent things are uncanny. The unexpected has a disconcerting effect. The absence of visible cause is perplexing to the child and even perhaps to the animals<sup>1</sup> and produces alarm. It is so in a measure with us all. It is the new and mysterious suddenly brought into our presence, that shocks. By degrees we become accustomed to new sounds and impressions. Science has done much to make us acquainted with the causes of natural phenomena and consequently the occasions of shock have become fewer. Man is reducing and organizing the stimuli which formerly beset his psychic life and subjecting them to terms that may better be understood, and in the case of adults this process has gone far, but the most unexpected things may happen to children for their world is full of chance. In cases of arrested development in children, we often have a glimpse of what the ancient chaos of ignorance may really have meant. The commonplace things of science have had a sanitizing influence on culture.<sup>2</sup>

### III. THE MORE ENDURING EFFECTS OF SHOCK.

1. *Sensory and Motor Disturbances following Shock.* The general sensory and motor effects of shock are the familiar ones of neurasthenia and hysteria—lessened or perverted sensibility and lessened or perverted power of movement.

*Vision.* In the case of shock, vision is usually disturbed. If the patient attempts to read the lines soon run together. There is a loss of the power of accommodation as a result of general weakness and depression which render any sustained effort difficult or impossible. It is often impossible to do minute work of any kind. The size of the pupil is affected. The two pupils may differ in size. The tone of the retina is low. In some cases light causes a sort of blinding, the flowing of tears and the closing of lids. Not seldom this aversion to light is connected with subjective light sensations, such as seeing balls of fire, stars, rays, or in contrast to these, dark spots. Fétré,<sup>3</sup> Lehmann and Bleuler state that they have observed many instances of photopsia as a result of a shock (sudden, strong, stimulation) on some part of the body experienced in the dark. Faure has observed color blindness following in the wake of psychic shock.

*Hearing and Sense of Equilibrium.* The shock resulting from a fright has caused in young people the sudden loss of hearing. This sort of deafness is frequently not to be cured.<sup>4</sup>

<sup>1</sup>Vignoli: *Myth and Science.* Appleton, N. Y., 1882. p. 55 *et seq.*

<sup>2</sup>Hall: *Fears.* *Am. Jour. Psy.* Vol. VIII, p. 197.

<sup>3</sup>Fétré: *Pathology of Emotions.* London, 1899. p. 32.

<sup>4</sup>Fétré: *Pathology of Emotions.* London, 1899, p. 248.

Hearing may, on the contrary, be made unusually acute. There may also be produced neurasthenic vertigo. The patient has the feeling that the earth is sinking under him and he is about to step into space. He knows that he is weak and fears that he will be taken for an intoxicated person.

*Anæsthesia.* From shock there often result anaesthesiae of the skin and of the other sense organs. It is a characteristic of the dermal anaesthesiae due to this cause, that they do not follow anatomical lines in their grouping, neither those of localization in the brain and spinal cord, nor those of the peripheral nervous system, but rather the naïve fancies of the patient. There is no crossing of the effects; they all remain on the same side as the wound. The anaesthesiae are located directly on the injured member, where usually the other symptoms, as pain and paralysis, are present with greatest intensity. The anaesthesiae may be very different qualitatively. Not seldom they are absolute. One may then treat the affected portion of the skin and also the underlying tissues with great severity, (needle pricks, heat, or strong electrical current), without causing any reflex disturbance. In other cases only a partial anaesthesia exists. Up to a certain intensity painful stimuli will be endured, then pain sensations enter and a defensive movement takes place. In most cases all varieties of dermal sensation are affected and all equally blunted. There may, however, appear the loss of pain and temperature sensations, with the retention of those of touch; or the temperature sense alone may be lost. In some cases localization is lacking. The muscle and position feelings are seldom destroyed. Pain may be erratically located in other parts of the body and is frequently delayed in its appearance. It may, however, be severe in character, deep-seated in position and, from the absence of all external wounds, very obscure in origin.

*Stammering as the Result of Mental Shock.* As an example of the effects of shock on the more delicate motor-mechanisms we may take the disturbances of speech. Stammering may be caused by either somatic or psychic shock. Sikorski believes that psychic shock is more likely to result in this way than somatic. Out of 167 cases he reports that he found 27 cases which had been caused by fright. In another group of 102 cases reported by the physician of a military school, over 70% had resulted from fright. Oltuszewski has, however, reported 535 cases distributed in percentages among various causes as follows: Rapid speaking, 18%; Brain disorder, 2%; Imitation, 30%; Fright, 23%; Diseases, 10%; Constitutional diseases, 6%; Injury, 47%. The remainder were due to hereditary causes.<sup>1</sup>

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<sup>1</sup>See Conradi: *Pedagogical Seminary*, Vol. XI, 1904, p. 357.

A single case reported by Behnke shows the effect in the concrete. A girl, aged eleven, was alone with her mother who died suddenly of heart failure. The shock rendered the girl speechless for hours. By degrees her voice was regained, but she stammered excessively with violent contortions. She was shy and timid and feared she would stammer if she attempted to speak. Great tact and care were used and she was prevented from becoming morbid regarding the matter. After treatment of the speech defect she was able to speak without fault unless worried or anxious.<sup>1</sup>

2. *Traumatic Neurasthenia.* We now turn to a somewhat more detailed consideration of nervous diseases sequent to shock—especially neurasthenia.<sup>2</sup> Neurasthenia often develops as the result of injury and shock and, when so developed, differs very little from neurasthenia resulting from other causes. For the details of the symptoms the reader is referred to the work of Bailey just cited. It is not frequent in the old and young but occurs oftener in the active period of life. Women are less subject to it than men. Nervous predisposition does not seem to be an essential factor. Accident appears to be the most important single causative agent. There is something about a railway accident in particular that favors its development, but it may result from other causes as well. The physical and psychical factors are very often associated. Perhaps the most favorable condition is a severe mental shock together with a rather vigorous shaking up. When fright alone produces such symptoms it is probable that the person was in an unstable nervous condition at the time of the accident. But as these neurasthenic conditions result from wounds received before the person knew there was any danger, the element of purely anticipatory fear would seem to be eliminated.<sup>3</sup> The gravity and duration of the symptoms may not be at all in proportion to the severity of the accident, but in general the more serious the accident the more refractory are the resulting neuroses.

Very little is known concerning the pathology of the trouble. Autopsies reveal no lesions sufficient to cause the symptoms. The nervous system, however, has not been examined with sufficient care for possible morbid appearances in the ganglion cells. Hodge and Lugaro have shown that there are visible alterations in the ganglion cells as a result of fatigue, and since fatigue is so prominent a characteristic of traumatic neurasthenia, it is natural to infer that there may be similar cellular disturbances. The onset of the trouble varies with the character

<sup>1</sup> Behnke: *On Stammering*. London, 1907, p. 21.

<sup>2</sup> Bailey: *Accident and Injury*, New York, 1900, p. 220 *et seq.*

<sup>3</sup> Anticipation of the consequences of an injury already received may, however, be an important factor. See above.

of the accident and the influences surrounding the patient before and after its occurrence. The latent period between the time of accident and the first appearance of neurasthenic symptoms varies in duration. Usually only a few days intervene but sometimes the period is extended to weeks. The condition of the patient may vary from fretfulness and querulousness to the borderland of insanity.

Fear is conspicuous but it rarely takes on a systematized form. All the circumstances relating to the accident are dreaded, but it is a very rare thing to find such a patient fearing any one particular thing, such as contamination or open places.

The sleep of patients suffering from traumatic neurasthenia is disturbed by fearful dreams. Perhaps after sleeping an hour the patient spends the remainder of the night walking the floor. In the morning he sleeps better. His dreams are seldom connected with the events of the shock.

*Fatigue in Traumatic Neuroses.* The lack of capacity for the usual amount of exertion required by the business of life is characteristic and is well shown in such cases as the following.

Mr. Pf., aged 42, was healthy until a fall on his head in 1900, from which he remained unconscious for a short time. The wound healed and in a few days he was again at his work. A change was soon noticed, however; he felt tired, irritable and apathetic. He became giddy, had attacks of hysteria and gave up his work. He was quiet and lived "as if in a dream." He was timid and had difficulty in comprehending. His fatigue was accompanied by a great reduction of mental and physical capacity. There was no improvement in 1907.<sup>1</sup>

Specht cites also another case. Mr. T., aged 49, had been healthy except that his lungs had been affected once for a short time. He met with a series of accidents in 1886, but he never became unconscious and was only temporarily kept from his work. The last accident occurred in 1901, at which time some bones in his face were broken. Since then he has had numerous nervous troubles. He has been depressed, tearful, irritable and timorous. He took no interest in those around him and was devoid of will power. He lost his capacity for work, became hysterical and showed an increased liability to fatigue.

The exact laboratory studies of fatigue in cases of traumatic neuroses have usually shown that such patients are very susceptible to it. Their capacity for work and their power of recovery from its effects have both been greatly reduced. Their capacity to improve by practice is also impaired, the effects of practice disappearing very rapidly. In certain experiments

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<sup>1</sup>Specht: *Journal of Mental Science*, Vol. LIII, pp. 476, 477.

by Specht, however, two patients when tested with arithmetical work did not show especial liability to fatigue. But a "psychogenic impediment" was very evident, and their capacity for work had been almost destroyed.<sup>1</sup>

Gross<sup>2</sup> and Finzi found great liability to fatigue in their patient, Mr. P., who had suffered in a railroad accident, though not seriously, when about a year later they made tests of his power to add. Psycho-motor fatigue especially appeared much sooner than intellectual fatigue. Finzi also found with the same subject poor comprehension, poor ability to direct attention, great distraction, and slight capacity to improve by practice.

3. *Traumatic Hysteria.* Charcot was the first to establish the possibility of hysteria occasioned by injury. He formulated the theory that its development is the result of suggestion. The shock acts as the hypnotizing agent and local pain calls the patient's attention to the part injured. Bailey<sup>3</sup> believes that there are some objections to this theory but that it is the best that has yet been proposed. The disorder is comparatively rare among Americans. It is more common in Europe and particularly in France. The Hebrews all the world over are said to be liable to it. Charcot thinks the predisposing causes are found in persons of diseased, degenerated or abused nervous systems. The predispositions may be inherited or acquired. Without such predisposing causes the disease could not exist. The Germans, however, do not attach so much importance to the predisposing causes. It is difficult to find evidence of inherited impairment of the nervous system and hysteria may develop in persons whose lives seem to have been free from injurious influences. Traumatic hysteria has been recognized only in recent years, but it is now estimated that one-fifth of the cases of hysteria are of traumatic origin.

The circumstances under which the accident occurs are far more significant than the severity of the injury. Fright and excitement aid very materially in developing the symptoms. The influence of suggestion is evident. Experiences which are accompanied by painful feelings, frights, anxieties, shame and psychical pain, are fruitful in the production of hysterical symptoms. The results depend upon the sensibility of the person in question.

Freud<sup>4</sup> affirms that all cases of hysteria can be traced to a

<sup>1</sup> Specht: *Journal of Mental Science*, Vol. LIII, 1907, p. 506.

<sup>2</sup> Gross: *Psychologische Arbeiten* (Kraepelin), Vol. II, 1899, pp. 569-586.

<sup>3</sup> Bailey: *Accident and Injury*. Appleton, N. Y., 1900. p. 272.

<sup>4</sup> Jung: *Diagnostische Assoziationsstudien*. Leipzig, 1906. pp. 258-281.

series of psychic shocks which culminate finally into a sexual trauma of the pre-pubertal period. He believes that the hysterical symptom is essentially a symbol for ideas, which, in the last analysis, are sexual and which are not present in consciousness because thrust from it by a strong inhibition. This suppression is due to the ideas being so strongly colored with displeasure as to be incompatible with consciousness.

Bleuler<sup>1</sup> declares that there is no definite line of demarcation between the conscious and the unconscious. Our psychic processes are just as much influenced by those that are unconscious as by those that are conscious. In this sense there are unconscious sensations, perceptions, inferences, feelings, fears, and hopes which are distinguished from the so-called conscious phenomena only by the absence of the consciousness-quality. The separation of the two processes is entirely arbitrary and cannot be justified by observation. It is impossible to explain consciousness without admitting the unconscious phenomena, for the unconscious mechanism conditions, at every moment, the conscious processes.

The part injured is the most likely to be the seat of the trouble. When psychic shock alone is the exciting cause, the symptoms are usually less exactly localized, patients tending more to aphonia, convulsions or coma. It appears that age, sex, occupation and race influence traumatic hysteria. Knapp found the cases distributed about equally between males and females, but he has failed to convince all that this is true. The cases are most frequent in the active period of life. Modes of life which impair the health exert an influence on the genesis of traumatic hysteria, but the continued stress of litigation, which is at times a contributory cause of traumatic neurasthenia, does not have the same influence in producing hysteria. So far as hysteria is concerned, when the first fright or injury has been received the mischief is already done.

Nothing is known concerning the anatomical changes which are responsible for hysteria of any sort.

4. *Insanity Following Shock.* States of extreme mental depression or excitation have been observed to follow violent neural or psychic experiences and seem not rarely to pass without break into the gravest mental disease, though it may be doubted that shock alone often leads to such a result without the presence of other predisposing causes. Many cases could be cited in confirmation of the above statement; only a few typical instances, however, will be mentioned in this connection.

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<sup>1</sup>Jung: Diagnostische Assoziationsstudien. Leipzig, 1906. pp. 229-257.

A college student was thrown into an extreme state of fear by hazing. This fear passed into an attack of melancholia.<sup>1</sup> Sudden and great frights sometimes merge directly into acute dementia or stupor. A young man was returning home late at night when he was frightened by a practical joke. On the next day, he was found in the condition of acute dementia from which he suffered for several months.<sup>2</sup> A young woman was insulted by a peasant and the shock terminated in catalepsy.<sup>3</sup> In another case the burning of the home set up acute mania which ended fatally in a week.<sup>4</sup>

In some instances there appears to be a sudden throwing off of the control of the higher centres while the lower centres become excessively active. A condition of uncontrollable motor excitement is developed along with the lowering of the mental level. The following cases will serve to make this point clear.

A frontier guard on returning to his cabin found his wife and children dead. They had been scalped and mutilated by the Indians. He at once began to laugh and exclaimed to himself repeatedly: "This is the most foolish adventure I have ever seen." He laughed convulsively without cessation until death ensued from a vascular rupture.<sup>5</sup>

A peasant boy twelve years old was frightened, while crossing a field, by the owner of the field running after him, throwing him down and beating him brutally with his fist. The child trembled with fear at the time, and subsequently suffered what appeared to be a complete change of character and temper. From being agreeable and obedient, he became unkind, irascible and dissipated. He was incapable of the slightest effort of attention and was often obscene in thought. At the same time, he was seized with attacks of foolish laughing. These grew more and more intense and came without any apparent cause. When asked about his motive for laughing, he replied that it seemed to him as if some one were behind him crying in a loud and menacing voice and striking him on the back. In spite of the terror which he suffered, he was not able to inhibit his laughter. These attacks lasted for fifteen or twenty seconds and were repeated many times in the course of a day and night.<sup>6</sup>

Persecutory paranoia may develop from an accident. A woman, forty-three years old, on November 7, 1894, was se-

<sup>1</sup> Kellogg: *New York Medical Journal*, Vol. 82, 1905, pp. 797-800.

<sup>2</sup> Savage: *Insanity and Allied Neuroses*. London, 1884. p. 55.

<sup>3</sup> Tuke: *Dictionary of Psychological Medicine*. London, 1892. Vol. I, p. 185.

<sup>4</sup> Savage: *Insanity and Allied Neuroses*. London, 1884. p. 55.

<sup>5</sup> Toulzac: *Rire et Pleurer Spasmodiques*. Paris, 1901. p. 19.

<sup>6</sup> Toulzac: *Rire et Pleurer Spasmodique*. Paris, 1901. p. 20.

verely wounded on the right hand. Gradually trophic disturbances appeared. The skin became glassy, the musculature of the right hand atrophied, and there was a psycho-motor paralysis of the arm. The entire right half of the body showed hyperesthesia. The field of vision was contracted on both sides. There were pains in the head, forgetfulness, nausea and poor sleep. A hysterical condition developed later which rapidly passed into hallucinatory paranoia with persecutory ideas.<sup>1</sup>

In illustration of the frequency of grave mental disorders resulting from a shock of some sort, we may cite the figures for the single year 1906-1907 given in the recent Report of the State Commission in Lunacy of New York.<sup>2</sup> This report gives a total of 6,954 cases admitted to the hospitals of the State during the year ending September 30, 1907. Of this number 231 cases were recorded as due to adverse conditions such as the loss of friends, business, etc.; 33 to religious excitement; 82 to fright and nervous shock; and 109 to accident and injury. Of these 455 cases, 88 had inherited predisposing cause for insanity, leaving 334 cases attributed to some sort of shock alone.

##### 5. MILD PSYCHIC DISTURBANCES

a. *Defective Memory.* Memory may be disturbed in a greater or less degree by shocks of either sort; but it is necessary to exclude here many cases of head injury, in which shock may very likely play a rôle, because the effects are then complicated by possible effects of direct injury to the brain substance. The following instances will serve to illustrate some of the ways in which the memory is disturbed.

Mr. A. found the front door of his home locked one dark night and on attempting to go to the rear door, fell into the basement and was found unconscious about one-half hour later. In a few hours he was restored to consciousness and the next morning fully understood the passing events. He retained, however, no memory whatever of his fall. All recollection ceased at the moment he turned from the front door.<sup>3</sup>

Dr. Douglas Graham, of Boston, tells of the following experience: "One evening in October, 1900, at 9.15, I found myself in bed with my head sown up. I asked my wife how I came to be there and what had happened. She said I had been knocked down by a 'scorcher,' and brought home in an ambulance with two policemen three hours before. . . . I have a dim recollection of getting off the car about ten minutes before I was knocked down by the bicycle. Then there was an

<sup>1</sup> Bruns: *Die Traumatischen Neurosen.* Wien, 1901. p. 34.

<sup>2</sup> State of New York State Commission in Lunacy, 19th Annual Report, Oct. 1, 1906, to Sept. 30, 1907. p. 364.

<sup>3</sup> Cowling: *Louisville Medical News*, January, 1880.

absolute blank for about three hours. I asked my wife how I seemed when the policemen brought me into the house. She says that I walked from the ambulance with a policeman on each side of me steadyng me—and I was very profuse in my thanks for their assistance, declaring all the time there was nothing the matter with me."<sup>1</sup>

Mr. Ravenhill, the *Punch* artist, gives the following account of his experience: One morning, while at Delhi, he was riding about town and making sketches. Suddenly the saddle-girths broke and he was thrown to the ground. For a time he was unconscious. When he came to himself his memory was completely gone. He could not recall his own name or the name of any friend. He could neither tell where he came from nor where he wished to be carried. Finally he was given his pencil and sketch book and was directed to draw a plan of Delhi and to mark the place he wished to go. Being unfamiliar with the city, he could not make the plan. He had, however, a misty picture of a long row of white canvas tents. When the pencil was put in his hand, he automatically began to sketch what was in his mind. After making a rough sketch of the camp, the desire to get back to his friends came with so much force that he was able to indicate accurately the place to which he wished to be conveyed.<sup>2</sup>

A man was thrown from the train and picked up unconscious. When he recovered, he had no recollection of how he had been hurt. The last thing he could remember was getting on the train about two hours before the accident. About eighteen months later he was on a train and, while passing from one car to the other, was nearly thrown from the platform by a sudden lurch. In his efforts to save himself, he recalled the incidents of the previous accident and the way he happened to be thrown from the train. The events of the first experience had been registered in the cortical centres, but could not be brought into consciousness. They were held in the neural memory and the second shock was sufficient to raise them into conscious life after a lapse of eighteen months.<sup>3</sup>

The following case, reported to the writer by a trustworthy witness, illustrates how a purely psychic shock may cause a disturbance of the memory. Mr. F., with others, was enjoying a social evening when a telegram was handed him. He was so much disturbed that it was impossible for him to open the envelope. Later it was discovered that he had no memory of several events which preceded by a minute or more the ringing of the door-bell announcing the messenger boy.

<sup>1</sup> Drummond: *Paidologist*, Vol. IX, 1907; 44.

<sup>2</sup> Drummond: *Paidologist*, Vol. IX, 1907; 43-44.

<sup>3</sup> Burr: *American Journal of Insanity*, Vol. 63, p. 378.

b. *Shock as a basis of Fear.* Shock is a fertile mother of fear, and the fears resulting may at times be both permanent and intense. In many instances no rational account can be given for their existence. They, however, persist and disturb the conscious life, behaving as a split-off portion of consciousness. Breuer and Freud<sup>1</sup> maintain that some of the shock experiences pass away and leave no bad effects, but others persist or return after a long, latent period. This latter condition is one of the strange things in mental life. The authors hold that through shock an experience is separated from the mass of the psychic store and thus an erratic idea is formed. For some reason or other the experiences fail to fuse with the mass already in consciousness. This new experience then forms a new nucleus for a dissociated system of ideas. This dissociated system often manifests itself in a persistent fear or insistent idea. A few concrete cases may be cited.

A cultured woman, thirty-seven years of age, became nervous and sleepless, and thought herself incurable. She blushed easily and had various nervous movements of the shoulders and hips. She was unable to remember many things about her previous life. She had two insistent ideas: she believed that she had been the cause of the death and going to hell, of one of her neighbors, and she, also, believed that she had caused the death of a boy pupil because she had given him a mild flogging. By the method of word-associations, as used by Jung, it was discovered that when the patient was seven years old, she had overheard the circumstances connected with the origin of a younger child. This acted as a psychic shock, and as such an idea was entirely foreign to the culture and refinement of the patient, it had to continue in a submerged condition apart from her normal consciousness. There was, thus, developed a system of ideas that did not fuse with the main stream of consciousness and the two systems tended to inhibit each other emotionally. As a result there was a constant discontent and a reproachful coloration in her normal consciousness. Jung explains her cure as the result of the strong effort required to drag the submerged facts up into full consciousness and to express them in the presence of others. Freud would say that she was cured not by the "energy cure" but by the confession itself. In either case, the cure was the result of bridging the chasm between the submerged system of ideas and those in normal consciousness, a chasm ultimately due to an experience of shock.<sup>2</sup>

When Charles Lamb was a child he was shown the picture

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<sup>1</sup>Breuer und Freud: *Studien über Hysterie*. Leipzig, 1885. p. 9.

<sup>2</sup>Jung: *Diagnostische Assoziationsstudien*. Leipzig, 1906. p. 258.

of the Witch of Endor raising up Samuel. The scene was too intense for his childish nerves. "I was dreadfully alive to nervous terrors. The night-time solitude and the dark were my hell. . . . I never laid my head on my pillow, I suppose, from the fourth to the seventh or eighth year of my life—so far as memory serves in things so long ago—without an assurance, which realized its own prophecy, of seeing some frightful spectre."<sup>1</sup>

Leigh Hunt, in his autobiography, tells of the influence horrible pictures had had on his life. He was shown a picture of the fabulous wild beast "Mantichora," half man and half tiger, represented as devouring small boys. He adds: "Such things are no petty ones to a sensitive child. My brothers had no notion of the mischief they did me. These scenes helped to morbidize all that was weak in my temperament and cost me many a bitter night."

Mr. A. was seen to give at all times, a wide berth to any horned animal. The approach of such animals seemed to demoralize him as much as a charge of cavalry. He confessed that, when a child, a cow had chased him, thrown him down and then tossed him on her horns. He has never completely recovered from this shock or been able to banish from his mind the sense of terror the circumstance produced.<sup>2</sup>

Here is another case taken from the life of George Brandes. He was asleep in the nursery and was awakened by his uncle saying loudly, "We must take the children out of bed." This was at night and when he opened his eyes, he was filled with terror. The room was bright, for a nearby schoolhouse was on fire. The flames crackled and sparks flew and it seemed to the boy that the world was on fire. His uncle asked him if he had palpitation of the heart. The child had never heard of this before, but his heart was beating furiously. The child was told that it was November 25. "The fright I had was so great that I never forgot this date, which became for me the object of a superstitious dread and when it drew near the following year, I was convinced that it would bring me fresh misfortune. This was so far the case that next year, at exactly the same time I fell ill and was obliged to spend some months in bed."<sup>3</sup>

A professor of psychology was fearless of high places through his youth, but soon after leaving college, he saw a servant fall from a fourth story window. He assisted in caring for the patient and since that time he cannot sleep in rooms high above

<sup>1</sup>Works of Charles Lamb. Harper Bros., N. Y., 1872. Vol. II, p. 82.

<sup>2</sup>Porter: The Philosophy of Courage. *Century*, Vol. 14, 1888, p. 246.

<sup>3</sup>Brandes, George: Reminiscence of My Childhood and Youth. N. Y., 1906. p. 4-5.

the ground. He has tried in vain to ascend Bunker Hill monument as a discipline, but found the tension too great. He was able to get over the suspension bridge at Niagara eighteen years later, only by walking in the middle of the bridge and grasping a carriage. The fear is rather more that the whole structure may collapse, but partly that he will lose control of himself.<sup>1</sup>

Sidis, in his studies in psychopathology gives a number of cases illustrating the existence of a fear which he has traced to some psychic shock experienced earlier in life. A single case may be taken as typical of a number that the author describes in detail.

Mr. D., who is twenty-five years old, has an "abject terror of dead people." In his childhood he was told many stories about ghosts and the wandering souls of the lost. When he was about nine years old his mother noticed some abnormal growths on his body. Fearing that these growths might become serious, she followed the advice of a friend and made use of a charm. The little boy was taken into the room where the dead body of an old woman was lying and the cold hand of the corpse was placed on the naked breast of the child. The child was terrified and fainted. From this experience dates his fear of the dead, the idea becoming subconsciously fixed.<sup>2</sup>

c. *Changes in Character.* Persons, who experience a shock of either sort, frequently undergo a change in character. Some instances have already been noted in other connections. Let us now turn to a few cases that show this factor in particular.

Mrs. A. had a family history of neurotic taint, but she lived in comfortable circumstances, was of more than average intelligence and had received the education of her class. When she was eighteen years of age, she suffered a severe shock in the sudden death of her father. This changed her condition permanently. She ceased to menstruate and suffered from other troubles peculiar to women. Her attention became weak and there developed a feeling of doubt as to her rightful possessions. She came to fear that she would cause the death or illness of the children she met. Water in quantity suggested the death of some one by drowning, and she came to feel that she was responsible for such imagined deaths. Later she imagined that the bread and meat she ate were human flesh. She feared to knit lest the needles should get into the food and be swallowed by some one. Yet, at the time, she was

<sup>1</sup>Hall: *Am. Jour. Psy.*, Vol. VIII, 1896-1897, p. 755.

<sup>2</sup>Sidis: *Studies in Psychopathology*. Boston, 1907. p. 45.

conscious that these were only "queer and silly notions." She has retained a sympathetic attitude toward her friends, and has remained truthful, good natured, pleasing and sociable.<sup>1</sup>

A girl heard of the sudden death of a friend she had chatted with that morning. "The awful shock nearly killed me, and changed me in a moment from a careless girl into a woman."<sup>2</sup>

A boy of seven was struck on the head by a cobblestone two years ago. No fracture of the skull was found, but there was a severe scalp wound which bled profusely. He was not unconscious at the time. Since the injury there have been frequent outbursts of irritability without amnesia. There is no intellectual defect, but in school he is very mischievous, plays truant, and draws peculiar pictures. There is no evidence of epilepsy and no degenerative stigmata.<sup>3</sup>

Mr. A. was slightly hurt in the muscles of the back in a collision of two trolley cars. Several were hurt and the circumstances were horrifying. The patient was stupid for the next eighteen months. If he were sent on an errand, he would forget what he was sent for. He would get lost in the street and give irrelevant answers to questions. He became lazy and had no interest in his family. His attitude toward them was entirely changed; he simply sat about, ate, slept. He had no hallucinations or delusions. Few facts could be obtained about his life, but he had been industrious and a good workman and had cared for his family. He had been a steady, but not an excessive drinker, for years.<sup>4</sup>

Mr. B. D. graduated from high school with honor and went into the office of a financial corporation. He was successful, but sensitive, anemic, and worked beyond his strength. He was neurotic and his family history was bad. In a railway collision, a car rolled down the bank and several were killed. The patient, however, received no physical injury. He tried to work the next day but he was too nervous to do so. Dr. Burr saw him several weeks later. He was then listless, sluggish in thought, careless about his personal appearances, dull and stupid. His hands were bluish-red, moist and cold; his pupils were dilated; his pulse was rapid; and his gait was slouching;

<sup>1</sup>Nolan: *Journal of Mental Science*, Vol. LIII, p. 615.

<sup>2</sup>Hall: *Study of Fears*. *Am. Jour. Psy.*, Vol. VIII, p. 194.

To these may be added the following which have been reported to the writer by reliable witnesses. A young man shot a friend by accident. Before the accident he had been very fond of society. After the accident, he appeared to avoid people and was timid and shy. When J. was five years old, she saw a pig killed by her neighbors. She became depressed over the matter and would never again eat meat.

<sup>3</sup>Coriat: *Psychological Clinic*, Vol. I, p. 136.

<sup>4</sup>Burr: *Journal American Medical Association*, Vol. 48, p. 36.

his attitude stooping. One shoulder was higher than the other. It was feared that adolescent dementia would develop. He was sent to the country for a year, and on his return he resumed work apparently well.<sup>1</sup>

6. *Curative Effects of Shock.* In view of what is now known as to the efficiency of various forms of psycho-therapeutic treatment, it would be remarkable if shock had not some cures to its credit. Many of the recorded instances belong, however, to the older literature of the subject or are the unconfirmed reports of casual observers. One may perhaps accept the account of the "cure" in such cases with due reservations as to the true diagnosis of the trouble.

Mosso cites Michia<sup>2</sup> as often having written insulting anonymous letters to patients suffering from mental derangement in order to cure them. This, Michia affirmed, gave good results in some hypochondriacal cases. He sought to remove fixed ideas by bringing before the mind of his patient some danger. Hysterics have been treated by threats or a sudden fright when all other means proved useless.

Amann, also cited by Mosso, tells of an hysterical patient who was subject to tetanic convulsions and trances who was cured by a beating at the hands of her father. In this same connection Mosso tells how Boerhave, while physician at Haarlem, suppressed an "epileptic" epidemic by means of fright or mental shock. When the physician saw that "epilepsy" was daily increasing, he had prepared a brazier full of coals in which he heated a number of pincers red-hot and announced to his patients that all who had fits thereafter were to be branded.

The ancients believed that maladies produced by strong emotion could be cured by other emotions equally strong. Others recommended flagellation for certain forms of melancholia and mania.<sup>3</sup>

Porcher found two instances in which he attributed cures to the psychic shock accompanying the Charleston earthquake in 1866. One gentleman was cured of his rheumatism, and another, who had been, for months, nervous, depressed and entirely unable to attend to any business, regained energy and former activity.<sup>4</sup>

A mild psychic epidemic in a girls' school was thus arrested by Dr. R. When called to the school the doctor found ten girls on the floor in what seemed to be a deep sleep. Their faces were pale; their breathing deep and quiet; their muscles

<sup>1</sup>Burr: *Journal American Medical Association*, Vol. 48, p. 36.

<sup>2</sup>Mosso: *Fear*. London, 1896. Tr. ch. 15.

<sup>3</sup>Meibomius: *Utilite de la Flagellation*, 1879, pp. 37-40.

<sup>4</sup>Porcher: *Medical News*, Vol. 49, p. 651-653.

flabby; their eyes closed; their pulses weak but normal in frequency. Their upper eyelids had a trembling movement such as is frequently seen in hypnotic cases. On opening their lids their eyes turned up and in this position the pupils reacted to light. They did not respond to commands or to shaking. Two showed stiffness in the neck and back. All were apparently unconscious. The doctor prescribed a pint of water dashed in the face of each girl coupled with the command to stand up and to stop such nonsense. This treatment was immediately successful. Half astonished and half ashamed all the girls arose at once except the two that had showed stiffness in the neck with whom a repetition of the treatment was necessary.<sup>1</sup>

Sthenic emotions are reported to have cured the gout. Féré<sup>2</sup> tells of a man confined to his bed by a violent attack, who, when one of his little daughters came into the room and was in danger of injury from a loose board left by a workman, threw himself in front of her and to his astonishment no longer felt the pain in his foot. On another occasion the same man was suffering from a still more serious attack when he ordered his servant to bring a table into his room. The table would not pass through the door except when turned in a certain position. After giving instructions to the servant in vain, he became exceedingly angry and drew it into the room himself. The pains instantly disappeared. Other cases of this same sort could be cited.

Fear of shipwreck has arrested seasickness and the same is true of other strong emotions. Thomas Moore was suffering from seasickness while crossing the Irish Sea when he was told of the death of his father. The seasickness soon ceased. The effect of fear on the organs of secretion is frequently reported. Chorea, which frequently develops after sthenic emotions, especially after fear, can be cured by a shock of the same sort. Hughes<sup>3</sup> tells of a girl suffering from an attack of chorea, that was cured by a fright received while crossing London Bridge. At the Congress of Alienist Physicians in 1888, Talcott<sup>4</sup> reported many cases of madness that had been cured by trauma.

The shock treatment is not a panacea, however. Somatic and psychic shock may have a tonic effect, but they may also have a depressive one. Which will result in any case depends, in

<sup>1</sup> Zeitschrift für Schulgesundheitspflege, 1893, p. 561-563.

<sup>2</sup> Féré: Pathology of Emotions. London, 1899. Tr. pp. 274-275.

<sup>3</sup> Féré: Pathology of the Emotions. London, 1899. Tr. p. 277.

<sup>4</sup> Talcott: *Annales Medico-Psychologiques*. Paris, 1889. Tome, 9. pp. 307-309.

large measure, on the state of the body and mind of the patient at the moment of receiving the shock.

#### VI. PEDAGOGICAL AND REFORMATIVE INFLUENCE OF SHOCK

a. *Animal Behavior Modified by a Single Experience.* There are a few well authenticated cases which show that animals may sometimes learn from single experiences of an intense character. They may well serve as an introduction to our section on the pedagogical and reformatory influence of shock. A single punishment administered when a horse is frightened is often sufficient to produce lasting fear of the object in question. Porter<sup>1</sup> tells of a pig that was in the habit of gathering up the stray grains of corn at a railway station. While doing so one day its tail was caught between a car wheel and the brake shoe and torn off. The pig continued to come for corn but after the accident the noise of an approaching train caused him to beat a hasty retreat.

Monkeys also have been known to profit from a single painful or disagreeable experience. The act once performed leaves a lasting impression. After cutting themselves with a sharp knife, they do not touch it again; or, if they do, handle it with the greatest caution. On a certain occasion a monkey was given a lump of sugar wrapped in a paper. After a time a wasp was put in the package and the monkey was stung. A single experience established the habit of holding the package to the ear to make sure that there was no movement within.<sup>2</sup> Garner's chimpanzee, Moses, was burned by mischievously thrusting his hand into a can of hot water. After this experience Moses habitually avoided anything which gave off smoke or steam. Morgan's chicks learned from one or two experiences to avoid pecking at distasteful substances. A raccoon in Davis's experiments after opening a fastened box twenty-four times by a single method of attack caught one of her toes between the door and a hook. From this single experience dated a permanent change in the method of opening the door.<sup>3</sup>

b. *Influence of Shock in Punishment.* The shock of physical pain has been from time immemorial the last resort, and often the first, of the mental and moral trainer of the human animal. Hall<sup>4</sup> believes that a child whose will is not absolutely diseased by balkiness, may be helped by a whipping, if properly administered. It aids the power of self-control. In case of

<sup>1</sup> Porter: *Philosophy of Courage*, *Century*, Vol. XIV, p. 246.

<sup>2</sup> Darwin: *Descent of Man*. Appleton, 1903. p. 76.

<sup>3</sup> Davis: *Am. Jour. Psy.*, Vol. 18, p. 467.

<sup>4</sup> Hall: *Study of Anger*, *Am. Jour. Psy.*, Vol. X, p. 578.

young children a sudden blow on the instant and without a word of warning or moralizing is often very effective. The teacher or parent may show indignation to good advantage. "This gives a quick sense of the natural abhorrence with which such conduct is regarded and teaches the child limitations beyond which its conduct becomes outrageous to others." In the case of children tenderly brought up neglect alone is often sufficient to surprise or shock the child into realizing the parents' disapproval of his conduct. Anger may, however, be overcome by a wholly different sort of a shock, to wit, by provoking a laugh. The change in mental attitude allows other emotions to assert themselves and the child's self-control is regained.

Smith<sup>1</sup> in discussing obstinacy concludes that where such a state of mind is accompanied by a long and violent outburst of anger leading to a state of exhaustion, corporal punishment may be the best means of treatment. A spanking or a shock of some sort seems to have, not only a good immediate effect, but proves a relief also to the child. The author adds that in such cases there is often a high degree of nervous tension and a condition approaching hysteria. Physical pain or shock seems to relieve this tension and drains off the nervous energy into channels that are desirable for mental hygiene.

In the following, related by competent authority to the present writer, a psychic shock served as an efficient means of discipline. A young colored boy was found to be very difficult to manage. In fact, all means known in the usual list of punishments had failed. As a last resort an appeal was made to his superstitions. He was placed in the cold-air passage, and a strange noise was made so that the boy could hear it but could not see its source. He was very much frightened and from this time on he has been reasonably docile. It is only necessary to mention sending him to the small room and he yields.

c. *Shock as an Element in Conversion.* In an earlier section reference has already been made to the profound changes in character resulting from physical and psychic shocks. Certain typical cases of sudden conversion resemble these closely in causation. Some religious sects seek to make use of this method and to increase their membership by emphasizing the fact of sin and setting it against salvation. They insist on a definite, decisive, and more or less momentary change of life. Such denominations advocate passivity not activity; relaxation and not intentness. The individual is urged to become indifferent and to resign himself to the care of higher powers. This

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<sup>1</sup> Smith: *Obstinacy and Obedience*, *Pedagogical Seminary*, Vol. XII, pp. 27-54.

state is reached by passing a critical point. A corner must be turned. Something must give way. A native hardness must break down and disappear. This event is frequently sudden and automatic and leaves on the subject an impression that he has been wrought upon by an external power. Many people testify to this sort of an experience. The break in continuity is so sudden that it may easily be classed as an experience of shock. James offers the following explanation based on the assumption of a subliminal consciousness. The vestiges of mental contents gather with such power that they burst through barriers which separate the conscious from the subconscious, and overflow the field of the conscious life. The mind forges forward with a leap.<sup>1</sup>

Prince believes that, in some cases of sudden conversions, there is formed a new system of ideas not as the result of an "uprush" from a co-active subconsciousness, but rather by the "automatic crystallization of past experience out of what may be termed the potential or latent consciousness." These memories of past experiences until this moment were not systematized; but now they become a sort of emotional automatism, an independent focus of energy and persistently dominate consciousness. He affirms that most cases of sudden conversion are of this type.<sup>2</sup>

d. *Shock as a Factor in Ethnic Degeneration and Mob Consciousness.* History has many illustrations of the destructive power of mental shock on the ethnic mind. Some sudden, great and unexpected catastrophe as a malignant epidemic or disastrous war breaks asunder the associations or overturns the institutions under which the community has grown up and reconstruction is slow or perhaps incomplete or impossible. In the Black Death, 1348-50, nearly one-fourth of the people were destroyed. Following the terror and despair of that time, there was an unparalleled abandonment of all restraint. Reckless indulgences in the wildest debaucheries are reported. There was an entire disregard of social restrictions.<sup>3</sup> Medical historians<sup>4</sup> tell us that following the "Plague and Famine"

<sup>1</sup> James: *Varieties of Religious Experience*. London, 1902. p. 113.

<sup>2</sup> Prince: *Journal of Abnormal Psychology*, Vol. I, pp. 42-54. In this connection compare also the statement made by Näcke in the *Zeitschrift für Religionspsychologie*, Band I, Heft 6, S. 233-253. A sudden emotional experience not only fills consciousness, but also sets into action many forgotten experiences dating back to childhood. These reawakened experiences have their original emotional tone. The previous existing ideas are submerged and we have a complete shifting of the point of view of the individual.

<sup>3</sup> Brinton: *Basis of Social Relations*. New York, 1902. p. 102.

<sup>4</sup> Hecker: *Epidemics of the Middle Ages*. London, 1846. pp. 32-50.

years 1491-95 "the corruption of morals reached a height without parallel in ancient times."

Defeat in battle has depressing power and conquered peoples often have their spirits broken. The Aztecs, who had been a proud and warlike people, sank to the condition of serfs when conquered by a handful of whites.

Great natural convulsions like earthquakes leave a deep impression on the minds of men who experience them. Humboldt,<sup>1</sup> who refers to the matter, does not think the impression a result of the fearful pictures of devastation, but that it is rather due to the sudden revelation of the delusive nature of the inherent faith by which men had clung to a belief in the immobility of the solid parts of the earth. "We are accustomed from early childhood to draw a contrast between the mobility of water and immobility of the soil on which we tread; and this feeling is confirmed by the evidence of our senses. When, therefore, we suddenly feel the ground move beneath us, a mysterious and natural force with which we were previously unacquainted is revealed to us as an active disturbance of stability. A moment destroys the illusions of a whole life; our deceptive faith in the repose of nature vanishes, and we feel transported, as it were, into a realm of unknown, destructive forces. Every sound, the faintest motion in the air, arrests our attention, and we no longer trust the ground on which we stand." Men see in the earthquake an universal and unescapable danger. Though the excited state of mind does not itself endure long, its effects strike deep roots into the conscious life.

The mob mind often comes into evidence as the result of an emotional shock. The cry of fire or the sight of flames throws an audience into panic. Again, when the community feels that it has been outraged by some heinous crime, mob violence is the result. In both cases the usual restraints of civilization are broken down and the primitive and anti-social emotions come to the front.

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## THE FIELD OF EDUCATION

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The professional training of teachers is still young. This is especially true for secondary and for higher schools. As a consequence the content of the curriculum in teachers colleges and in schools of education is unsettled and chaotic. To have this impressed upon one's mind, one needs only to inspect the catalogues of a halfdozen different universities having teachers courses. Lack of a common technical nomenclature makes the apparent chaos greater than the actual. The term 'Principles of Education' for example, means one thing in one place and quite a different thing in another place. The boundaries between the different subjects are seldom drawn twice at the same points. As a result, a student having taken a subject in one school may be obliged to cover much of the same ground again when taking a different subject in another school.

The problem of the content of the pedagogical field may perhaps be best approached by asking of what the professional training of the teacher should consist. What subjects are essential for the teacher in training to pursue? This question may be asked here just as it may be asked for the prospective physician, lawyer, or engineer. In each case the answer consists of a list of subjects covering the various aspects of the student's later professional activities.

The diversity of subjects mentioned in the catalogues of training schools for teachers may, it would seem, be reduced to following list.

- Adequate Academic Preparation
- General Psychology
- Child Psychology
- Principles of Education
- Principles of Teaching
- History of Education
- School Management and School Law
- School Hygiene
- School Administration
- School Supervision
- Special Method
- Observation of Teaching
- Practice Teaching

The academic preparation of the teacher must be regarded as at least semi-professional, for it comprises the stock in trade that the teacher uses in plying his calling. It will needs vary with the grade of school and the subjects which the student intends to teach. No definite standards have yet been evolved in this country, but they are becoming manifest in several directions. It is quite generally the custom now for the grade teacher in the city system, and even in the progressive country district, to have at least a normal school diploma. This has in many places been made obligatory by school boards, who act in response to social and professional demands. The normal school course stands for approximately two years of preparation beyond the four year high school. These two years include the time for the more strictly professional subjects, to which about half the time is given. For country school teachers a lesser amount of preparation is being provided in some places, notably in Wisconsin. This is done by means of county training schools, which admit from the eighth grade and grant a diploma after the completion of a two year course. Similar courses are also provided in some of the normal schools in various parts of the country.

For high school teachers, preparation equivalent to the standard bachelor's degree is being more and more demanded. Rules making this demand obligatory are now on the minutes of many city school boards. This is the minimum. For the high schools in the larger cities, applicants holding the master's and even the doctor's degree are preferred.

Technical professional training for high school teachers is still in its infancy, but this, too, is rapidly coming. A number of the states already demand by statute that a certain minimum amount of time shall have been devoted to professional subjects by the prospective teacher before he is allowed to teach on his diploma without examination. Teachers colleges, and schools and departments of education have recently been, and are still being organized in connection with most of the larger universities of the country. These have for their avowed aim the training of high school teachers. Degrees in education and professional diplomas are granted on the completion of the course including the professional work. Even the professional training of college teachers is beginning to be discussed.<sup>1</sup>

At present the professional work in colleges is counted toward the bachelor's degree and no more units are required of the student for the professional diploma and the degree than have been demanded heretofore for the degree alone. This is well if it proves to leave enough time for the academic work,

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<sup>1</sup>See the *School Review* for March, 1908.

but if it does not, a year should be added in the teacher's course, making that course five years beyond the high school instead of four. If the bachelor's degree is then conferred at the completion of four years of work, the master's degree might be conferred in conjunction with the professional diploma at the completion of the next year. Altogether this would no doubt be a better arrangement for the adequate professional training of high school teachers.

While the academic work should include something of all the principal branches of knowledge, in the teacher's course, as in the other courses, the major part of it should be, and usually is, grouped about a few related topics so as to insure adequate preparation in the branches the student wishes to teach. The subjects cannot well be left freely elective, but the restriction would be such as any wise student would make for himself.

There are a number of subjects that bear an especially close relation to the professional work of the teacher, being in fact preparatory for it. Among these subjects should be mentioned biology, sociology, philosophy, logic and ethics.

X Education is largely a biological and sociological function and, therefore, it is highly desirable that the teacher should include in his academic preparation introductory courses in biology and sociology. Without these he must necessarily be more or less handicapped. Sociology lays the foundation for the appreciation of the meaning, aim and value of education, and biology lays the basis for psychology, makes explicit the fundamental principles of development and introduces the student to the evolutionary point of view, without which one cannot have a sympathetic appreciation of modern culture. Some neurology is needed as a basis for psychology, but as the psychological texts usually cover the needed parts of this subject, a separate course is not strictly required.

History of philosophy, logic and ethics is also desirable as an element in the teacher's training. The history of philosophy gives a conspectus of the development of man's conception of the meaning and value of reality, life and mind, and so forms an almost indispensable correlate of the history of education; logic, inductive and deductive, is necessary for the thorough understanding of the typical methods of instruction; while ethics correlates with the Principles of Education and is needed every day in the schoolroom: An introduction to modern philosophy, for its synthesizing value, is scarcely less desirable.

The connecting link between the academic and professional subjects in the teacher's course is formed by psychology. On which side this subject should be classed is disputed in theory and is unsettled in practice. It is generally agreed, however,

that the subject is essential and basic in the teacher's training. Psychology gives a knowledge of the known facts and principles of the mind, and as it is the teacher's immediate function to bring about mental changes, he must know psychology if he wishes to proceed intelligently. Mere empirical knowledge is as inadequate here as it is in agriculture or engineering. Just as the engineer profits by the facts and principles of mechanics, so the teacher profits by the facts and principles of psychology.

It is becoming customary in colleges to give three hours a week for half a year to the introductory course in psychology. This is enough time for the text-book work, but allows no time for experimental work in the laboratory, to which the prospective teacher should also be introduced.

Child psychology has not yet won for itself so definite a place in the teacher's professional curriculum as have most of the other subjects mentioned. It is only just emerging from the pupa stage of 'child study' in which it did not always command the highest respect. The texts in the subjects are still too long drawn out. But there are certain facts known here with which every trained teacher should be acquainted. A separate course in the subject should be provided, but if not, the work should form a part of some other course, perhaps the course in Special Method. Here it forms an ideal part of the introduction, and the phases especially needed may be emphasized. By the high school teacher, for example, the adolescent period should be most fully studied. In the college course, however, the subject is worthy of an assignment by itself.

No place is here given to 'genetic psychology'. In the undergraduate curriculum no special place seems to be needed for it because its ground is sufficiently covered by Child Psychology and by the Principles of Teaching. In the graduate department it may well receive a separate assignment.

The next two subjects, the Principles of Education and the Principles of Teaching,<sup>1</sup> have so far usually been given together under such names as the Science of Education, Philosophy of Education, General Method, etc. There are here two distinct lines of thought, however, and it is well to keep them measurably distinct in practice. Together they may form a year's work of two or three periods a week, the time being equally divided between the two.

The distinction between, and the function of, these two subjects are lucidly discussed by E. L. Thorndike in the introduction to his *Principles of Teaching*. He says: "What

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<sup>1</sup> 'Education' is here used in the generic, and 'Teaching' in the specific sense.

changes should be made in human nature by primary, grammar and high schools and why these and not other changes should be the aim of the schools, are questions usually answered under the heading of 'Principles of Education'. How most efficiently to make such changes as educational aims recommend is a question usually answered under the headings 'Principles of Teaching', 'Methods of Teaching', 'Theory and Practice of Teaching', or 'Educational Psychology'." (p. 2.) That is, the function of the former is to raise and answer the question of the *What* and *Why* of education, while that of the latter is the *How*. Together these two subjects form the backbone of the teacher's professional training on the theoretical side.

The Course in the Principles of Education gets its data mainly from biology, psychology, sociology and ethics. It discusses chiefly the meaning, aims and values of education, deducing therefrom the historical-social significance of the curriculum and the criteria for the evaluation and selection of subject matter. It is the broadest, most unifying subject in the teacher's curriculum and for that reason some prefer to call it 'philosophy of education'. These, however, usually like to inject metaphysical speculations which are out of place here, in the undergraduate course at least.

The teacher in the classroom is mainly concerned with the 'how' of teaching, and only indirectly with the 'what' and the 'why.' The subject matter of the curriculum is determined by those higher in authority and by social forces outside the school, and the teacher usually has little power to modify it. But this does not constitute a ground for his remaining ignorant of its underlying principles. A teacher cannot work intelligently in any part of the school system without appreciating in some definite degree the purpose and function of education as a whole. He is no mere wheel in a machine but an intelligent worker aiming to assist in the achievement of the purpose of the whole.

Methods of teaching, too, are in many instances dependent upon what one understands to be the aim of education. A teacher who conceives the aim of education to be acquaintance with environment is likely to teach physics, for example, quite differently from one who conceives the aim to be mental discipline. It is because of this relation that the Principles of Education should logically precede the Principles of Teaching.

The subject here designated Principles of Teaching, is the course that applies the principles of psychology to teaching and is more commonly called 'educational psychology'. If the subject were merely an application of psychology to teaching, the term might be satisfactory, but as we have just seen, the

## THE FIELD OF EDUCATION

Principles of Education also furnish some, furnishes others. What we literally have principles of teaching, or of imparting instruction, principles spring from various sources, of which there is but one, although the main one.

The function of this course has already been indicated. It is to assist the teacher in becoming a more resourceful, and progressive worker in the field of imparting instruction and of developing character.

The History of Education gives a view of the development of education in the leading nations and epochs. The aims and methods have been dominant and have been the causes of success and of failure, at different times. The problems, aims and practices of education are the factors of its existence. Little that is presented is directly practical but its value, both to the individual and to the profession, is great, nevertheless. It gives historical background to the profession, the national and cultural elements to the teacher's training, the social consciousness and professional group; (2) leaders like Socrates, Pestalozzi, Comenius, etc., serve as an inspiration to all that make their profession great; (3) educational values and practices are absolute and fixed, but relative to the society of the times, although the underlying principle remains the same. On the more practical side the student learns how to select the successful, and in discarding unsatisfactory, and (5) it helps in understanding a variety of problems that cannot be adequately understood without a knowledge of their historical origin. These problems are the doctrine of formal discipline, the interest and effort, the teacher's attitude to the place of the classical languages in the curriculum.

School Management, also designated 'Classroom Management' and 'School Economy', deals with the management of the classroom with a minimum of friction. Quick, quiet and harmonious control is its aim. A young teacher can gain much here from the experiments of others as recorded in textbooks. With the knowledge so gained he is likely to come into contact with situations that he might otherwise have avoided.

School Hygiene deals with the physical welfare of the pupils of the school, and through them of society at large. It is closely related to School Management, which subject it may logically follow, although the two should not be identified. This course together should be given at least two hours per week during one year.

As an element in the teacher's training, School Hygiene is still far from having achieved the recognition it deserves. This is no doubt owing largely to the fact that the courses given in it in the past have not been sufficiently intensive and scientific; they have not been given by people with adequate training. The teacher needs to know not only the psychology of nourishment and fatigue, how to adjust desks, how to heat and ventilate a schoolroom, but also how to test for defects in the senses and the nasal passages, and how to detect the beginning of certain contagious diseases. To this end it would be well to have the course given by one who has taken a degree in medicine; but if this cannot be had, by one who has at least had thorough training in general bacteriology, physiology and psychology.

In state training schools, School Law is frequently treated in connection with School Management. Schools that train for no particular state cannot well cover this subject, but in a measure it may there be combined with School Administration. This subject deals, or should deal, with a comparative study of the organization, administration and support of state, city, county, district and foreign school systems. As yet its boundaries are not sharply enough defined, and it overlaps the fields of Management and of Supervision. There is still altogether too much of this overlapping in educational subjects, which is owing to the unorganized nature of the field. This wastes no small amount of time for the student.

In its relation to teaching, Administration must be classed with the Principles of Education and the History of Education, rather than with the Principles of Teaching, Management and Hygiene. Its bearing on the problems of the schoolroom, and those of the teacher outside the schoolroom, is more or less indirect, but none the less vital.

If foreign school systems are omitted here and are left to the graduate department, or are alone included, two hours a week throughout the year given to this subject, together with Supervision, would probably be a fair allotment of time. Supervision may follow Administration as Hygiene may follow Management.

School Supervision is only just beginning to differentiate from the somewhat amorphous fields of Administration and Management. It is of most vital concern to superintendents and principals, but it is well for all teachers to be acquainted with its leading principles so that they may be more able to work in intelligent and sympathetic harmony with the efforts of their supervisors. But both Administration and Supervision might perhaps be left as electives in the undergraduate work. Normal schools as a rule do not give this work at all in sep-

arate courses. Treatises and text-books in these two subjects are still far too scarce.

The aim of the course in Special Method is to select the appropriate elements from the various courses pursued and focus them down to the problems that a particular group of students will meet. The contents of this course will needs vary with the grade and type of school in which the members of the class are preparing to teach. It would be different for the high school than for the grade or the kindergarten teacher.

Review of subject matter is not Special Method, and when necessary, should be elsewhere provided. In preparing for high school teaching, for example, this course should at least consider (1) the meaning and function of secondary education, (2) foreign secondary education as compared with our own, (3) the relation of the high school to the college and to the grades, (4) the history in outline of secondary education in America, (5) recent tendencies in high schools and their causes, (6) adolescence and its relation to the high school, (7) the criteria for the evaluation and selection of subject matter, (8) the educational value, content and method of presentation of the different high school subjects, and (9) the organization of courses of study. For the grade teacher a corresponding list of topics should be selected, adapting them, perhaps, separately to the upper and the lower grades. There is material enough here to keep a class profitably busy two hours a week throughout a year.

This work should of course come late in the teacher's course, after most of the other theoretical subjects had been completed, for it rests upon them. Students, however, want to rush into this work first, thinking that learning to teach is learning some knack or device instead of the application of laboriously acquired principles. There is no short cut to intelligent teaching.

The person to give the course in Special Method is the educational expert, and not the specialist in subject matter, at least until the latter is pedagogically trained. As yet the teachers of science, language, etc., too seldom have the pedagogical outlook, and when they give the work the time of the class is too often wasted. To appreciate this fact, one needs only to examine the books on Special Method in the several so-called 'Teachers Series.' Some of these are entirely misleading, and scarcely half of them are worth casual reading, to say nothing of studying, yet these books are so planned that a class would fritter away two hours a week for a whole year in learning to teach one subject. This is certainly an instance of 'lay pedagogy' going to seed.

The capstone of the teacher's training is formed by the course in practice under guidance. This is as essential in the

right training of the teacher as is the hospital practice for the physician or the shop work for the engineer. Without it the student feels no vital need for the theoretical work, and so cannot properly assimilate and retain it. It might even be maintained that without it the student had better go out and get some practical experience before systematically taking up the professional work. Even a year of teaching goes far in laying the basis for the assimilation of theory. But beyond question the best method is to let the practice work run along side of the later theoretical work.

By having the first teaching done under intelligent and sympathetic guidance, much is gained for the teacher. He will be led (1) to form the connection between the theory and the practice, and (2) he will be started off with right teaching habits. In my experience as a supervisor of practice teachers I could almost invariably tell if a student had taught before or not, even though I had no previous knowledge of the fact. I could do this by the difficulty experienced in breaking habits, such as the repeating of the answers of the pupils. If the student had taught much, it was in many cases quite impossible to reform habits.

The connection between theory and practice is seldom formed effectively by the student himself. He may know all about the theory of the development, study, review and drill lessons, but without assistance he wastes much time in learning where and how to apply this theory, and often fails altogether.

The amount of time to be given to practice teaching is not easy to indicate. It should probably vary with the needs of the student. The time given by normal schools varies all the way from 10 to 60 weeks, and the responsibility of the student varies from being put in charge of the class for just one recitation period to having charge of the whole school for half a day and even a whole day. The tendency is to place more responsibility upon the student for a shorter time. The median time at present is approximately 20 weeks, or half a year.<sup>1</sup>

Facilities for offering practice work are at present one of the burning problems facing the teachers colleges and the schools and departments of education in our universities. How may this best be done?

The work in Observation is usually easy to provide, but the teaching observed should be of an expert variety. It may be given in conjunction with the Principles of Teaching, the

<sup>1</sup> See Ruediger: *Education*, Vol. xxvii, p. 174 f., Aspects of the professional work in normal schools; and *Educational Review*, Vol. xxxiii, p. 271 f., Recent tendencies in the normal schools of the United States.

## THE FIELD OF EDUCATION

course in Special Method, or it may form the practice teaching.

It has been the aim here to present an undergraduate work in the teachers course department a variety of other courses is now considered deviation is in place. Still, is not entirely chaotic. It naturally falls into cycles. The first cycle should lead the student to acquaintance with his specialty, introducing him to special treatises and to monographic literature. The second cycle should instruct him in methods of research, carrying along with this literature of the special topics investigated; if a seminar is provided, it should be a seminar where students come together for the discussion and criticism of their work.

## THE PREPARATION OF A CLASS FOR A LESSON IN LITERATURE

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By SARAH J. McNARY, Ph. D., State Normal School, Trenton, N. J.

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It was a high school class in English,—a heterogeneous class, as is usual in our cities. A few of the students came from homes of culture, some were foreign-born, many were without literary prepossessions. They were about to read Milton's minor poems, since the college entrance board had so ordered, and also since it is a good thing on general principles for even those who have no thought of college to know something of so great a poet. Prefixed to the text they were using was a not uninteresting life of Milton, and accordingly the teacher assigned it for study, as a reasonable method of arousing interest in the poetry. It seemed to Miss Drake unfortunate that the biography must be studied apart from its relation to English history. After all their arrangements and rearrangements of the various subjects, the faculty had been unable to provide for complete correlation, and Milton had been one of those to suffer. Considering everything, the class did very well with his life. Miss Drake supplemented the text from her own fairly wide store of reading, to the manifest brightening of the general interest. She loved Milton, not profoundly, perhaps, but with a reverent allegiance. She was not many years out of college, and she was full of enthusiasm for scholarship. Her eager spirit carried the class along, sometimes in spite of themselves.

For the next lesson, she told them to prepare *L'Allegro*, by reading the poem first as a whole to grasp the thought, with the aid of certain guiding questions which she dictated, and then by studying it minutely with the editor's notes. She gave the latter directions with some misgivings, for in the past, many of those notes had been to the average girl and boy a stumbling block, and to the foreign-born, foolishness. Yet her ideals of scholarship demanded that her students accumulate what the college professor who edited the poems regarded as a proper equipment for the high school mind. The recitation of this lesson did not quite satisfy Miss Drake. It lacked briskness, verve, joy. Instead of bringing the poetry nearer to the students, the introductory reading of Milton's life seemed to have increased the distance between them and the poet's

thought. Though they obediently pointed out vivid images, they did not kindle to their beauty. Later, when after a similar study of *Il Penseroso* they compared the two poems, it was a little better. They took pleasure in the neat definiteness of this particular comparison; so often the effort of comparing any two matters pertaining to literature was clouded by a bewildering haziness. With *Comus* and *Lycidas* there were more difficulties in the way. In a fashion, it is true, these difficulties were surmounted; the majority of the class passed tests compiled from college entrance examinations, and they wrote papers containing unimpeachably orthodox sentiments concerning Milton and his poems. Yet all the time Miss Drake knew, for she was a sensitive soul, that they had not been really touched; no thought or need of theirs had been expressed by the poet. All that they had gained was information about him, not companionship with him. When the doors of the schoolroom should close behind them, Milton would be locked inside. The precious life-blood of that "master spirit, embalmed and treasured up on purpose for a life beyond life," for them had been ineffectual.

Miss Drake pondered these things in her heart. At first she said to herself that only rare spirits can care for poetry, and that such had been fed in their measure by Milton through her ministrations. The rest, too, had undoubtedly gained something. The exact nature of that something it was not encouraging to analyze, since it was not the one thing that it should be. She tried to console herself by hoping that the rank and file, having been thus introduced to a great poet in their youth, would return to him in after years, feeling then for the first time a real need of him.

Then she sadly recalled the obtuse enthusiasm of certain visiting alumnae over literature that should have seemed trash to those who had known the best; she remembered, too, glimpses into homes that had remained bookless for years after their sons and daughters had completed courses in high school English. She foresaw a conclusion that to her eyes wore the colors of pessimism: the conclusion that poetry no longer expresses the general life of man; that it has become the utterance of isolated individuals, whose thoughts and feelings are unlike those of the race, and can be shared only by a few kindred spirits.

To assent to this conclusion was to undermine the faith that hitherto sustained her in her work, and to call in question her ultimate ideals. She would yield, however, only under the compulsion of invincible facts. Her years of teaching had not been long enough to furnish incontrovertible proof that literature can be taught only to the few. Perhaps, after all, the

trouble lay in her method of presentation. But had she not been obedient to logic, and to the example of her own teachers? And did she not make the dry bones of mere method alive by sincere love of her subject? Her mind was clear as to these points, and yet— What if she question more closely her own vital experience with books? Not her academic experience merely, save as it was one of many possible means of approach, but rather, as of greater import, those other moments, that, coming often without observation, had opened her soul to the soul of a poet. Scanning these, she noted how many of the books she loved were not hedged about by the paraphernalia of a course of study. True, such a course had sometimes helped to make her ready for them, but their real interest was not, as a rule, primarily dependent upon it. Again and again she had taken up a book with complete mental readiness, with a prepossession in its favor derived from influential suggestions, and yet she had failed utterly to respond to it. On other memorable occasions she had opened a book not knowing what she should find in it; and lo! creation had widened on her view, as the words smote themselves into her consciousness, with such quickening of her whole being that her memory was still keen to all the accompanying sense-detail of such hours:—the flutter of a curtain, the angle of a chair, the falling of the sunlight across the room. So had come to her Wordsworth's great Ode. How she had always pitied those who faced that poem for the first time in a classroom at a teacher's bidding. It was chance then, after all, that ruled. The winds of the soul's moods blow as they list, and it is useless for a teacher to hope to control them. She had circled about to her starting-point.

But upon close analysis these vagrant episodes might disclose something of more practical significance. This mood, as she had called it, this readiness of spirit,—of what did it consist? Always when her own way to a poem was unobstructed, it was because there had been within her some antecedent struggle for expression of the very feeling of the poet; some call, however faint, which he had answered; some need, however incipient, which he had met. At the happy moment of such meeting, the overlying interests of her mind had been stripped away, by chance or otherwise, and the poem had blazed a path into her soul. Mere knowledge was not enough. Similarity of experience there must be, in a measure, on the part of author and reader. Consonance of mood there must be also. To bring about such consonance the teacher must plan delicately and warily. She must first recall the experience freshly to consciousness; she must then, if necessary, induce the mood most favorable for its use. It would not do, Miss

Drake had discovered, to trust the printed words to pierce their way through huddled, unrelated mental images to a memory too feeble to recognize its beautiful kinsmen. It would not always do to depend on a knowledge of the life of the writer to arouse sympathy for anything he might say. She must bring to the forefront of consciousness, she must invest with the deepest possible interest, the personal experience which could reach out hands of unhesitating recognition to the experience of the poet. For poetry, as Keats said, "should strike the reader as a wording of his own highest thoughts, and appear almost a remembrance."

Accordingly, when the time came for teaching Milton to another class, she did not begin with his biography. Instead, she gave a day or two to "oral composition," an exercise which under her guidance was always full of attraction. She asked the students to describe their ideal way of spending two days, one of which was to be dominated by gaiety, the other by an equally enjoyable pensiveness. She told them to be very specific as to everything they would like to see and hear and do on such days. They responded eagerly and definitely. In many details their imaginations ran closely, though of course they were unaware of the fact, after Milton's. It was clear to Miss Drake that, as far as the themes of the poems were concerned, the students would find in Milton the voice of their desires. The subject-matter being in large measure parallel with their experiences, their minds were free to enjoy the unique beauty of the form. Because they had been seeking an expression for the same ideas, when the poet's adequate phrasing should be presented to them, they could appreciate something of the shaping power of the artist.

Hitherto Miss Drake had always found her classes somewhat balked by the invocations to the poems. Suggestive as they were in this case, the personifications of abstract ideas had seemed artificial, do what she would to vitalize them. Could she not more effectively help her students to appreciate these also? She could at least try. Continuing the oral work, she took up the subject of personification. It was not a new one, for they had studied Greek myths, and had incidentally noted the figure as it occurred in their reading. They now readily recalled the personifications of winds, clouds, thunder and other forms of nature, which they had made as children. They were naturally less ready, however, to give pictorial shape to abstract ideas. Miss Drake called their attention to the use made of such forms in decorative art, showing them many reproductions of sculpture and printing, and dwelling upon the significant details. This gave an impetus to their imaginations, and they made suggestive attempts to image the list of ideas

which she gave them, and which included most of those personified by Milton in the two poems.

The class was now prepared for the text. She assigned *L'Allegro* and *Il Penseroso* for one lesson, giving no specific directions for study. When they met for recitation, she saw that something unusual had happened. They did not wait for questions; of their own impulse they began at once to tell how the poet had expressed their very own thoughts, and how apt his words were, how vivid his pictures, how exquisite his music. As for the explanatory notes, the young students had made the use of them that their needs had demanded, not in anticipation of test questions, but because they desired to know. If their wants were not yet of such sort as to make use of all the learned lumber in the back of the book, what did it matter, since their souls had had sight of the soul of Milton, and he was theirs forever?

Now, because the time was ripe, the students wished to know something about the life of their poet. In answer to their questions, Miss Drake told them his story, and was rewarded a few days afterward by discovering that they had been reading about him for themselves. With this living interest in his life, and with the glimpse into his times that such reading gave them, they could follow an analogous method with *Lycidas*. As a preparation for the poem, they were told about the death of Edward King, about his character and plans, his relation to Milton, and the work he might have done if he had lived. They tried to realize a similar problem for themselves. As they naturally wished to read some elegy as an inspiration, Miss Drake supplied to them, in translation, the Bion and Moschus which were singing through Milton's mind when he wrote his poem. In their planning they began to perceive how such a poem might be shaped. To a considerable extent they anticipated Milton's own sequence of thought, and thus greatly reduced the difficulties of the text. As nearly as was possible for their varying capabilities, they approached the creative mood. Only in this way, Miss Drake became convinced, could the maximum of appreciation be developed.

Thenceforth, when she dealt with subjective literature, as a preparatory step she often led her students to recall or recombine their experiences in such a way as to approximate, as far as might be, the work of the poet. If their past did not contain the necessary elements of the experience, and if she could not actually provide them, it was useless to attempt the study of the work in question. It was not always necessary to spend so much time upon the initial stage, for, earlier than in former years, the blessed time came to her classes when the happy expectancy of the joys to be found in books led them

triumphantly over difficulties to the perception of what the poetry or prose held for them. They grew to love poetry especially, because they believed that in it they heard their own voices glorified.

When the matter of the literature was objective, Miss Drake modified her method. If the material was drawn from history or legend, she would sometimes lead her young folk to conceive the artist's problem, and to suggest some possibilities concerning its solution. Her method of teaching Burke's *Speech on Conciliation* may be cited as an illustration. The historical conditions, naturally, were first made clear. Then the class, imagining itself in the presence of such a House of Commons as Burke addressed, sought for the most cogent arguments for conciliation with the American colonies. Of course they did not light upon all the arguments that Burke's great intellect discerned, but the fact that they had conceived the situation, and had made the kind of effort that he had made, invested the speech itself with the deepest possible interest.

It was not original, you say, this discovery of Miss Drake's. No, it was only the psychological doctrine of apperception extended, in her mind, to include the feelings. What she finally named it to herself was "inducing the creative attitude or mood." Had she studied in a school of pedagogy, had she observed how skillful teachers in primary grades prepare their children to hear certain stories and poems,—how by wisely directed effort in the initial stage they forestall the necessity for explanations, and secure from the outset the intelligent sympathy of their listeners—she might have apprehended the doctrine long before. But she had come from a college, not from a professional school, and she had to work out her own salvation.

Yet even teachers whose diplomas proclaim that they have been rooted and grounded in pedagogical principles sometimes fail to apply this one adequately. The grammar grade teacher, it is true, usually makes some attempt to prepare her pupils for the literature they are about to read; but very often this preparation takes account of facts and words only, and of these perfunctorily and disconnectedly. Sometimes she does nothing more than write on the blackboard a list of the more difficult words in the reading lesson, for the pupils to pronounce and define. Sometimes she assigns for preliminary reading an outline sketch of the author's life, written in bare, reference-book style. Only biographies full of picturesque and dramatic incidents,—and such lives have rarely fallen to the lot of authors read in school—are likely to appeal to young readers. If preliminary interest in the writer is to be aroused,

—and whether such interest should be antecedent to the reading itself is a question—it can be effectively done only by means of an animated, sympathetic account, out of the fullness of the teacher's mind and heart, and not from a book. For other necessary explanations, she often waits until the context demands them, thus marring whatever unity of impression the uninterrupted reading might have produced. As for impressing the unity of thought and feeling by careful preparation for both, she is frequently quite unaware of her opportunity.

Her high school sister is also apt to be lax in these respects. Why delay the pictures and the talk about castle-life and the practices of knighthood until the class has read and faultily imaged the chapter in *Ivanhoe* or the canto in *Marmion* where accurate concepts are so desirable? Knights and castles are sufficiently interesting in themselves to furnish matter for a fruitful lesson before the novel or the poem is touched. Many an allusion, the point of which vivifies a beautiful thought, might have been made clear before it was read at all, and thus idea and expression would have flashed themselves unforgettable into the young mind. To try to do everything of this kind that might be done before the actual reading may in some cases seem a wearisome undertaking; but a little more care in planning the work may bring all these things to pass. If they are really actively present in the teacher's thought, she will find many incidental opportunities to bring them before a class, often long before they occur in the literature read. Many of the words, for example, that are a stumbling-block and an offense when taught in lists, might have become old friends and allies if the teacher had used them in her own vocabulary when occasion invited.

If these things be true of preparation as it concerns the understanding alone, they are still more significant with relation to the feeling with which a young learner approaches literature. Lists of words, and a compiler's sketch of an author's life, are not likely to arouse a desire to read a given work; neither device appeals in any way to the life-experience of the pupil,—to his ideas, his emotions, his potential sympathy with the author's mood. Such an appeal must be made skillfully, by personal talk, by suggestive questioning, by carefully elicited reminiscences, above all, by the contagion of the harmony between the teacher and the author. When such an appeal has been made successfully, the soul even of a child may understand the work of an artist, and the vital essence of a poem may be inwrought into his spiritual fibre.

That the primary aim in teaching literature is culture rather than the mere acquisition of knowledge, has long been conceded by educators, and is acknowledged by every teacher who

loves literature for its own sake. To frame a method of teaching in accordance with this conviction is by no means easy. Even for those who see the end most clearly, the way to it is beset with thorns. Perceiving that her efforts to kindle in her pupils a realizing sense of the power and beauty of a great classic have been only half successful, the discouraged teacher is prone to lay increasing emphasis upon the mere analysis of structure and the study of words, as being at least definite, capable of return from the class, and therefore calculable products. Even though she may have been rewarded with some measure of success in her endeavor to train the feelings as well as the thought-activities,—though she may have seen the light of interest in the eyes of many of her students, and heard from their lips expressions of liking for the work in hand—yet she has moments of doubt as to whether the contact of their souls with a certain poem has been really vital. Will these young people leave Milton and Shakespeare behind them in the schoolroom? Will they be thenceforth carelessly content with books manifestly far inferior to those which she has read with them? Has she succeeded in breaking down the barriers between their lives and the life that is in great books?

Sometimes, it is true, she is blessedly sure of her answer. Some of her students were book-lovers when they came to her, and the way for them was a way of pleasantness and a path of peace. For others, it was her hand that opened the door which no man can shut. But the rank and file!—of these also she must make accounting. For these her wary methods, her vivid suggestions, the power of her personality, have been unavailing. For the sake of these, and perhaps, too, for the better instruction even of those who willingly receive the word and bring forth fruit, this record of a teacher's experience may claim a hearing.

## RIVALRY: ITS GENETIC DEVELOPMENT AND PEDAGOGY

By GEORGE ORDAHL, Geneva College, Beaver Falls, Pa.

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Struggle in the form of rivalry has been celebrated in prose and poetry. Historians have for the most part contented themselves with recording and describing the conflicts of different peoples. Without investigating the primal causes, they deal with wars and with battles, assuming these to be the chief theme of history. Instances are everywhere. We need only recall the period of ancient times, *e. g.*, that of Greece and Persia; the period of feudalism, or the events of the last decade.

Thermopylæ and Salamis are synonyms for the struggle between Greek and Persian. While Rome and Carthage stand out as classic examples of rival powers. Poets have sung of the rivalries of individuals and extolled their virtues in contest. Virgil sings of men and of arms. While Wordsworth, the poet of peace and of nature, pictures his ideal man in the *Happy Warrior*.

But rivalry is not all directed outward. Shelley gives us a Titanic subjective struggle in *Prometheus Bound*. Hamlet is wrecked by the rivalry of motives. And Scripture gives us the acme of this inner conflict in the temptation. A gigantic inner conflict of good and evil motives, and further declares, "he that ruleth his spirit [is better] than he that taketh a city."

For some rivalry is the mainspring of life and of progress, for others it is the great obstacle that hinders advancement. For some it is an extraneous factor brought in through adverse social conditions, for others it was in the beginning and is the *primum movens*.

In view of this lack of agreement as to the legitimate place of rivalry, the subject of this study needs no apology. It will be helpful at least to collect and investigate the facts relative to its origin, development, and pedagogical significance. While in this paper only illustrations of rivalry in its different stages can be given, it is believed that the examples cited are representative.

#### ANIMAL RIVALRY

The first business of the infant animal is to get food, and it is in the food activities that he finds himself involved in conflict with his kind. Struggle for food is practically universal in the animal kingdom. But rivalry for food is not so general. Solitary animals often engage in strenuous activities to secure food, though rarely do they meet opposition from their own species. Social and gregarious animals on the other hand are apt to find kin-companions their most formidable rivals in obtaining food. The mink, for example, seeks food alone, unmolested by companions. He may lay waste a whole flock of chickens with no one to dispute his possession.

The wolf, on the other hand, gregarious and social, is constantly in rivalry with the members of the pack for food. When a wolf scents prey he gives a call to which the pack respond by joining in the hunt. But when the prey is secured mutual aid gives way and rivalry stands out in all its savage vigor. Each wolf tries to get food before the others get it, and to get all he can.

Among the single celled animals we find no activities that can be classed as rivalry. And though the "zoophytes may compete with each other, their era was one of comparative peace. "But worms," the next and third order in the animal series, "can harm one another. They or their immediate descendants began the battle which still rages." Although the worms began the battle, competition is found among the

zoophytes. Of these animals Tyler says they "could feel but one emotion, hunger."<sup>1</sup>

It is therefore quite probable that rivalry and battle have been actuated by the need for food.

Passing over the fourth plane of animal life, the fishes, where the struggle for food is perhaps yet too much reflex to be considered other than organic, we come to the reptiles, the third order of vertebrates. While they are perhaps of too low an order to manifest intelligent rivalry, there is manifest affection among even the common snakes. And Delboeuf writes: "My lizards did not vary from the general rule. The best worm was always the one that a comrade had. If it was long, one might witness such a steeple chase as is seen sometimes in a poultry yard." (13, p. 396.)

Food rivalry among birds is general, but chiefly sexual. The barnyard fowl, nevertheless, furnishes ample evidence of food rivalry. The chick has hardly begun to peck before it seems to know that the best worm is the one its comrade is running away with. Of nestlings Dr. Herrick remarks, "they are constantly trying to gain some advantage over each other." My own observations might be taken to confirm the statement. An interesting and aggressive young robin in a nest of two, seemed rather naively to appreciate his superior position when he had gotten out on the rim of the nest. Apparently he contrived to intercept the food directed toward his mate in the bottom of the nest, at any rate he often succeeded. The observations credit him with two-thirds of all the food brought to the nest. Among the sparrow nests under observation one contained a lone young; though this bird appeared to be normal and active in every way, it did not manifest the same intense activity in food reactions as did the young of larger families. With all the birds observed, the ones that called the loudest and most frequent got the most food. In one case a female grosbeak neglected one of her young which did not call much until it died.

Domestic animals furnish examples of rivalry no less significant than those of animals in the wild. Louis Robinson has given us a description of hog manners which is true to life.

"When a pig is alone in a sty he will take his meals in an indifferent and leisurely manner, and, as often as not, if abundantly supplied with a "wash" he will leave some of it in the trough until it becomes stale and uneatable. But when several are domiciled together, the beautiful influence of competition, which we so often admire in human affairs, comes to the aid of the former. The instant that the pail is emptied into the hog trough, there is an eager rush to the spot, each pig thrusting its fellows aside, and plunging its snout deep

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<sup>1</sup>Tyler: *Growth and Education*, p. 28.

into the fluid, in order to get as much property as possible into the only strong room he knows of, where his goods are in peace." (42, p. 221.)

The author has not only given a true description of the pig and its manners, but he has stated a belief in the economic advantage of competition, in fattening hogs. The present writer has observed similarly the habits of barnyard animals and is able, not only to confirm the foregoing account, but to add experimental evidence, which seems to show that the animal probably appreciates his relative position with regard to his companions. But so far as the economic advantage is concerned, it is probable that the only gain is that of time, since a lone hog without the stimulus of companions will so accumulate fat that it can neither stand nor see out of its eyes. On a certain Dakota farm it was the custom to take one hog from the flock and place it in an adjoining pen for fattening. It took a few days before the lone hog learned the others could not get at its food. If reflex imitation could account for rivalry then this lone hog should continue to eat ravenously so long as the others were present; it does not, however, but learns to eat leisurely. Should a second hog be placed with the lone animal, rivalry would be immediately resumed.

The wild horse of the mountains and desert often finds itself in strenuous struggle with nature and in keen rivalry with members of the herd. If it is not a good forager, the inclement winter and more alert companions may push it to the wall to perish. The domestic animal, perhaps, no less than the one free and untrained, manifests the same competitive tendency under all conditions of feeding. A horse may not much notice cattle and sheep about him in the pasture, but of his own kin-companions he is very conscious, especially if fodder be scarce, and he is particularly hungry. At such times intimate companionship may not count for much. The recognized superior by quiet but unmistakable signs warns his companions to keep at a safe distance. At the watering place the leader drinks first and is apt to stand guard over the trough long after his thirst is satisfied, as though superiority were a thing of pleasure as well as of use. Feed a horse at the manger and if he is very hungry he may throw out a warning gesture to his mate, though all his life he has been tied so he could not execute his threat. If his master lingers near the fodder he may crowd him with his shoulder if he dare or manifest his anxiety and impatience by quick stepping of his fore feet while he nervously crowds his mouth with food. All of these actions would seem to be reminiscent of times when the horse was not so much in a struggle with untoward nature as in rivalry with the individual animals of the group.

for the scanty grass that could be pawed from under the snow, picked from the sage brush on the desert or cropped from the edge of streams trickling from the mountains. Like the hog mentioned above, he seems to realize that he must not only get his food quickly, but that he must get it before the other individuals appropriate it; this which is the chief characteristic of the rivalry consciousness.

The cow, proverbially if not actually very stupid, and the docile sheep, are no less endowed with this impulsive tendency than is the horse. The sheep will bunt her offspring from the trough when they are yet scarcely weaned. The mother cow soon forgets her maternal instinct and enters into rivalry with her young for the fodder distributed in the yard, or for the choice grass of the pasture. Brehm reports interesting cases of animal rivalry, among which is that of a mother monkey struggling against her young for the possession and appropriation of food.

"After about six weeks the monkey began to take other food than the mother's milk and new phenomena appeared. The two animals manifested a wide variation in their mental life. The same mother which formerly took tender care of her young, who without interruption bore him hanging to her body and to her breast, and was so full of mother care, was now ready to snatch the food from out his mouth. The same mother did not permit him, as he began to eat, to lay hand upon but the least morsel of food. As soon as the keeper had given them fruit and bread, she seized it, thrust the young from her, if he approached, and hurriedly filled her cheek pouches before she left it. One greatly erred if he supposed that a nobler impulse than gluttony moved her to this action. She could not suppose it necessary for suckling the young, for she had no milk any longer, neither did she entertain any apprehension that the food would be any harm to it. The young ate the food and flourished on it. Hunger soon made him keen, venturesome and active. He no longer shrank back at the strokes of his mother, and now she pushed him away in order to secure everything for herself. The young was cunning and active enough, indeed, to get a bite and spring around the back of his mother where he devoured it. This foresight was necessary, for the mother many times went to the farthest corner of the room in order to take the food away from her young. In order to prevent injury, which the unnatural feelings might prompt, we gave them more food than the mother could eat or store in her pouches, and thus we helped the young one. It continued in good health and was cherished by the mother so long as it did not take her food." (4, p. 96.)<sup>1</sup>

From the behavior of animals in feeding we not only have evidence of their present psychic reactions, but probable evidence of the social origin and development of rivalry. In case of the dog, it may well be that struggle against its prey was not more essential to its survival than the ability to maintain itself against the individual members of the pack, in which

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Kinnaman: *Am. Jour. of Psy.*, Vol. XIII, p. 134.

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case relative position would mean a relative On this point Robinson (42, 229) speculates

"The way in which a cat takes its food is a natural state, it is not in the habit of associating. When given something to eat, it first morsel, then takes it in a deliberate and gazing to finish it at leisure. There is none of that hastiness at any food held before it, which we trained dogs; nor does a cat seem in any hurry the one place where thieving rivals cannot indeed no greater contrast in natural table manners anywhere than when we turn from the kennel the dainty way in which a cat takes its meals."

According to the above theory the cat rivalry with its kin-companions for food, ever, does not hold for the infant cat. My observations during the summer of '07, show kittens' organized process of struggling against each other kittens under observation this summer for the first (26 hrs. old) for the nipple. Each had not definitely the first few days. The first well co-ordinated movements of all four striking in a sort of swimming movement, nipple or rooted for it. More particularly literally on top did the movements resemble a terrier dog digging for rats. This struggle as the animals grew older and more habituated at the breast. Later, when they were fed there was no sign of opposition among themselves from the mother, if one got in another's way dispossessed. The only emotional reaction detected was in the whimpering tone of the voice which grew more severe.

Conclusions strongly indicated are as follows: Rivalry is a reaction to an organic sensation with the very low forms, became a condition has been transmitted as an organic habit. A specific case of natural selection, which facts. From such phenomena as the horse over water or food after their appetites have evidently taking pleasure in 'lording it' one can conclude food rivalry has developed a psychological situation of mastery or supremacy.

The above citations of animal food rivalry are not to be exhaustive or unique. They are taken for the most part common and also because they are typical of animal life in general, and

elements of rivalry are clearly typified in each of the several cases.

*Sex-rivalry.* The following cases are, similarly to the foregoing, selected to cover this particular phase of rivalry, not exhaustively but generally, and at the same time are chosen as type forms.

"The Gasteropoda, though capable of locomotion and furnished with imperfect eyes, do not appear to be endowed with sufficient mental powers for the members of the same sex to struggle in rivalry." Of the sea worms (sub-kingdom of the Vermes), Darwin again concludes: All these worm-like animals apparently stand too low in the scale for the individuals of either sex to exert any choice in selecting a partner, or for the individuals of the same sex to struggle together in rivalry.

Darwin quotes a case from the Amphipoda that seems to show sexual choice, but involves no rivalry (10 p. 274). He also states, "It is not known that male crustaceans fight together for the possession of the females, but it is probably the case." From the *Descent of Man* we may quote the following cases of rivalry among insects. "That inimitable observer, M. Fabre, in describing the habits of Carceris, a wasp-like-insect, remarks that fights frequently ensue between the males for the possession of some particular female who sits an apparently unconcerned beholder of the struggle for supremacy, and when the victory is decided, quietly flies away in company with the conqueror. . . . It may be well to remark that insects belonging to this order have power of recognizing each other after long intervals of time, and are deeply attached." (11, p. 296.)

"Some male beetles, which seem ill fitted for fighting, nevertheless engage in conflict for the possession of the females. Mr. Wallace saw two males of *Leptorhynchus angustatus*, a linear beetle with a much elongated rostrum, fighting for a female, who stood close by busy at her boring. They pushed at each other with their rostra, and clawed and thumped apparently in the greatest rage. The smaller male, however, soon ran away acknowledging himself vanquished." . . . When Mr. A. H. Davis enclosed two males with one female in a box, the larger male severely pinched the smaller one, until he resigned his pretensions." Of another beetle, he states, "The two sexes inhabit the same burrow. . . . If, during the breeding season, a strange male attempts to enter the burrow, he is attacked; the female does not remain passive, but closes the mouth of the burrow, and encourages her mate by pushing him on from behind; and the battle lasts until the aggressor is killed or runs away."

We may cite one more case of insect rivalry from a recent work and by a careful observer. In his study on spiders Dr. Porter asks the question: "How far is it true that there is a battle for supremacy among the males?" In answer to this question we have the following (11, p. 347): "The males on Fig. 8 did fight for supremacy."

In the case described above, where the male did not succeed in copulating, the two males on the side had an encounter. The one farthest away, or the one I had previously selected as the smallest, retreated; the victor, or second in size, then approached the largest one which happened at the moment to be resting. But the aggressor suddenly beat a hasty retreat, leaving the largest male to continue his attentions. The male of these species do not go through the antics or show-

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ing offacts which are found in other species. The for supremacy, and Montgomery very probabl that the female chooses that male which "first by his movements that he is a male."

"The males of many fish fight for possession the stickleback, he says. "Their battles are these puny combatants fasten tight on each other tumbling over and over again, until their strength exhausted" . . . . "when a fish is conquered forsakes him; his gay colors fade away; and among his peaceable companions, but is for object of his conqueror's persecution." (This in limited size of the cage.)

Darwin also gives a case in which two trout often fight in much as desperate a manner as even the seals.

That the above cases should be included in rivalry seems all together justified. When defeated it is not pursued; the battle ends the opportunity to flee. The tendency is to tilities until death but only until supremacy far as this tendency prevails among insects. In the requirements of animal rivalry, at least of contrast we may note the battle of the seals that it is more, for here each fights until the other, and destruction of an opponent's supremacy.

Elliot has given a description of the rivalries of the rookeries, in Behring Sea. He was over 60 years, and his work on the seals is a classic. The seals come up on land before the females, upon a few feet of ground and defend it against all comers.

"It appears from my survey of these breeding grounds that the same understood principle exists among the able-bodied seals as among men. Each one shall remain undisturbed on his ground, which is about six or eight feet square, provided that he can hold it during the time until the arrival of the females, he is safe on his ground against all comers. By fresh arrivals he is often driven off altogether, or higher up on the ground until exhaustion from defending themselves along the coast.

Many of the bulls exhibit wonderful strength and endurance. I marked one veteran at Gorbatch who was in full condition early in May, and that position as usual. This male seal had fought at least forty or fifty times with his assailants every time, perhaps never having been beaten. He had fought off seals which coveted his position, and when they were over (after the cows are mostly all hauled up) he was covered with scars and frightfully gashed, ravaged and one eye gouged out, but lording it bravely fifteen or twenty females, who were all huddled together at the spot of his first location and around him.

This fighting between the old and adult seals

fight—is mostly or rather entirely done with the mouth. The opponents seize one another with their teeth, and then clenching their jaws nothing but the sheer strength of one and the other tugging to escape can shake them loose, and that effort invariably leaves an ugly wound, the sharp canines tearing out deep gutters in the skin and furrows in the blubber or shredding the flippers into ribbon strips.

They usually approach each other with comically averted heads, just as though they were ashamed of the rumpus which they are determined to precipitate. When they get near enough to reach one another they enter upon the repetition of many feints or passes before either one or the other takes the initiative by gripping. The heads are darted out and back as quick as a flash; their hoarse roaring and shrill piping whistles never cease, while their fat bodies writhes and swell with exertion and rage; furious lights gleam in their eyes; their hair flies in the air and their blood runs down; all combined makes a picture so fierce and so strange that from its unexpected position and its novelty is perhaps one of the most extraordinary brutal contests man can witness.

In these battles one is offensive, the other defensive. If the latter proves the weaker, he withdraws from the position occupied, and is never followed by his conqueror, who complacently throws up one of his hind flappers, fans himself, as it were, to cool his fevered wrath and blood from the heat of the conflict, and sinks into comparative quiet, only uttering a peculiar chuckle of satisfaction or contempt, with a sharp eye open for the next cautious bull or "sea catch." The bull does not fight for the pup if it strays beyond his limits nor does he ever attack a man beyond this area; but will fight to death on his stand in the defensive attitude. (15 p. 265-6.)

All animals engage in sexual rivalry; the deer, horse, sheep, cattle, etc., no less than the seal. But the writer believes that further illustrations would not add materially to our knowledge of the subject.

Sexual rivalry, perhaps, is a different thing from food rivalry, and yet there is much to confirm the theory that it is as much an organic sensation as is hunger and is conditioned upon nutrition. It begins later in the scale of life than food rivalry, and is more offensive, while food rivalry is more defensive. It is more highly emotional. The fact that contest ceases with the subsidence of the sexual emotion would make sex rivalry a special reaction to a special situation and not a general reaction that might be called an instinct of rivalry. Such cases as those of the seal point to a higher development of rivalry. These have ethical significance as well as the appearance of shading off into rivalry for leadership.

*Rivalry for Leadership.* A third form of rivalry among animals is the struggle that determines leadership, or secures to the victor a certain precedence among his fellows. One may say that the results of this form are more complex; that the situation is more social and less objective; in food and in sex rivalry the end is a concrete object; in the struggle for leadership the end is subjective, *i. e.*, for supremacy. It may be that underlying the various forms there is a common impulse

that relates them into a whole, and that no definite distinctions should be made of different sorts of rivalry. However this may be, it is highly probable there is no connection on the psychic side of the animal, though they may be closely connected biologically.

We have seen that rivalry for food is not interfered with by the maternal instinct, and that sex rivalry probably dies out with the subsidence of sexual emotion. In view of these facts it appears that the distinctions already made are justifiable on grounds of behavior. The material on this phase of rivalry is more scarce and less reliable than on that of food and sex rivalry, however there is much that is significant.

Rivalry for leadership probably does not occur among lower forms of animals. It is not at all probable that it occurs below the insects, and is even doubtful if any of the battles carried on by the ants can be included under this head. None lead. All seem to work independently and according to an inner impulse.

The first evident forms of leadership are found when we reach the birds. The writer has observed the wild geese in the wheat fields of Dakota. While feeding, one seems to lead the flock, also when they fly the leader takes the point of the wedge. I have been told by hunters that the flock is thrown into confusion if the leader is shot, and that the wedge does not form again, but that if the other members of the flock be shot the gap is closed up and the wedge goes on without break. I have also observed that the sentinel is not the leader, nor is the sentinel in office very long at a time, but I am inclined to believe the one last to duck its head into the stubble for grain does not do so but remains watching.

For several years I observed the sandhill cranes which fed on the stubble fields in the daytime and flew to the lakes in the evening. Quite frequently before starting on the evening trip a few would engage in what for a long time seemed to be a dance, but on closer observation it turned out to be a pretty definite contest. The birds would jump up striking each other with their wings and clawing with their feet. The pair which settled the contest first would lead the flock; the victor first, the victim next, the flock following. The significance of this contest is diminished when we know the cranes leave the fields many times without such trials of strength. But whatever meaning it can have must be in the line of social adjustment. It is the habit of these birds to go about in flocks of varying sizes from a few to perhaps 50 or 100, and it may well be that this form of rivalry has been evolved to determine the succession.

Many naturalists believe that the singing of birds is almost

exclusively "the effect of rivalry and emulation" and not for the sake of charming their mates. This was the opinion of Daines Barrington and White of Selbame, who have made a special study of this subject. Barrington, however, admits that "superiority in song gives to birds an amazing ascendancy over others, as is well known to bird catchers."

"It is certain that there is an intense degree of rivalry between the males in their singing. Bird-fanciers match their birds to see which will sing longest, and I was told by Mr. Karrell that a first-rate bird will sometimes sing until he drops down almost dead, or, according to Bechstein, quite dead from rupturing a vessel in the lungs.

That male birds should sing from emulation as well as for charming the female, is not at all incompatible; and it might have been expected that these two habits would have concurred like those of display and pugnacity." (ch. XIII, p. 376-77.)

The above case of rivalry between male song birds may well have in it a large element of reflex imitation. Canary birds sing more vigorously in accompaniment with noises, and all have seen them sing furiously or stop suddenly as a sewing machine was in operation or ceased to run. However, there is an equal chance for pure rivalry to be the motive. Besides it is probable that the singing of the males contains an element of rivalry if the end is to charm the female. In this case, however, the sex element would be divorced.

Writing in the *Century* for 1900, Seton Thompson gives an account of "the national Zoo at Washington," from which I take the following:

"I have heard it said that a little enmity in the life of a caged animal is better than absolute stagnation; but, of course, the enmity must be within limits. The buffalo herd had so far reverted to the native state that the old bull ruled for several years much as he would have done on the plains. He was what the keeper called "not a bad boss." . . . One of the younger bulls made an attempt to resist him once and had to be punished. . . . A year or so later he decided to risk it again. Both charged. But to the old bull's amazement the young one did not go down. . . . Both went at it again, now desperately. . . . As they pushed and parried, the young bull managed to get under the other and with a tremendous heave actually pitched his huge body up into the air and dashed him down the hillside. Three times the old bull was thus thrown before he would yield and then he sought to save his life by flight."

Darwin gives a case in which two young bulls unite to defeat an old one. The latter is left for dead, but when one of the young ones approaches the spot two days later the old bull arose, killed the young bull and quietly resumed his position in the herd. (11, p. 512.)

In accounting for the strength of the ox Robinson describes the contests of primitive cattle: "A desperate strife for the

mastery was always going on between the rival bulls which desired to lord it over the rest of the herd." . . . "There is no doubt that the massive fore-end of the bull bison was developed by the habit of using himself as a projectile wherewith to batter his rivals out of the over-lordship of the herd." Robinson observes a complex system of etiquette among working bullocks, that makes it necessary to tie them at the feeding racks in order of their precedence, which is "in some ways as exact and as rigidly adhered to as that at a German court."

My own observations on animals, both domestic and wild, extend over a period of ten years. Most interesting and applicable here is the experience with cattle. In early spring each year cattle were gathered in from the farms over a radius of some thirty miles and driven out on the prairies to graze until winter. This brought together a herd of about four hundred, composed of groups ranging from one to twenty, and of all ages. When they had recovered from the fatigue of the long drive a general free-for-all fight set in, especially among the males, but by no means confined to them. Not infrequently the members of a small group would follow after and attempt to assist one of their number in a contest with some alien. But more generally two fought unassisted with the usual crowd of spectators interested according to their several temperaments. These battles would be settled within a few weeks and the order of supremacy established, but not for the whole season. As the different individuals grew and fattened on the prairie grass the contests would be renewed among some of the stronger. In such cases it was evident that the victim never felt quite whipped; for he would follow his victorious rival about at a safe distance; however, when too close, would look askance and walk stealthily as if tensing the muscles. Then, perhaps, at a challenge from the victor, they would face about with lightning-like rapidity, the struggle would be on, the ground tremble with their charges, while the crowd gathered to witness the duel. These prolonged and intermittent contests took place among the steers, usually the bulls settled their score once for all.

The point of interest, aside from the very evident struggle for supremacy *per se*, is the attitude of the rivals when they meet. Is the feeling of rivalry a psychosis that carries over and remains in memory, or can it be accounted for by the stimulus of each approach? If the latter, we should expect the unfortunate animal to be as free in action and play as his successful rival, which is not the case until he is thoroughly whipped. If this observation is correct, it would point to a set of mind that persists in consciousness and depresses the individual until relieved by a decisive act. After speaking of

the care birds bestow upon their unfortunate companions, Hudson states that "among mammals such equality and harmony is rare. The instinct of one and all is to lord it over the others, with the result that one more powerful or domineering gets the mastery, to keep it thereafter as long as he can. The lower animals are in this respect very much like us; and in all kinds that are at all fierce-tempered the mastery of one over all, and of a few under him over the others, is most salutary; indeed it is inconceivable that they should be able to exist together under any other system." (29.)

These same cattle when sheltered in long sheds for the winter have to be tied in order of their relative supremacy, otherwise one falling between two, both of which were his superiors, would be gored to death. Not infrequently when thus tied in long rows have I known the order of supremacy to be reversed and serious results to follow if the change were not discovered in time to relieve the unfortunate one. It was not necessary that the one at the head should be supreme over the whole line. Very rarely is one animal master of every other member of the group. In this arrangement A would be able to defend himself against B, B against C, but C in turn might be master of A. This, however, would not interfere with the order provided B were placed between A and C. Robinson observes this same phenomenon among bullocks (42, p. 152).

The domestic and half wild dogs give us excellent illustrations of rivalry for supremacy among animals. Peary, in his arctic travels, used a team of forty half wild dogs. Besides the fierce struggles for food there was much energy expended in rivalry for supremacy. Of these half-tamed dogs Peary states: "The efficiency of the teams was very seriously impaired by continuous fighting resulting from the re-arrangement of the dogs; fighting which no earthly power can stop till it has been conclusively decided which dog is the king of each team" (40, p. 448). Whether this re-arrangement was brought about by loss of dogs or was an arrangement according to willingness to go ahead, Peary does not say, but I suspect the latter and that there was no rivalry for head place in the team. The rivalry for place, however, so far as supremacy in the team is concerned, is very evident. Hudson has reported further on this same point.

No less significant to our purpose are the observations and speculative conclusions of Louis Robinson on the domestic dog. His observations on the prevention of internecine struggle suggest the destructiveness of rivalry *per se*. On the other hand, the tense attitude it sustains is perhaps greatly beneficial to the health and functioning of the individuals. We also see

how absolutely necessary is rivalry to any form of co-operation.] The foregoing and the following cases suggest very strongly that this is the instinct which not only stimulates the individual but which holds the individuals together.

"Loyalty to one another is also a virtue which cannot be done without. Thus we see that, however great the emulation between the individual members of the band, while the hunt is on it is kept strictly within bands, and is subordinated to the common purpose. It is only when the game is captured and killed that contests of individuals for a share of the plunder commence. The very fact that an invitation is given to join in the pursuit as soon as the quarry is started, instead of the finder stealing off after it on his own account, is an illustration of this; and if one of the pack is attacked by the hunted animal at bay or by an enemy, his howls and excited outcry are instantly responded to by all within hearing" (42, p. 38). Hudson has observed the interrelations of rivalry and mutual aid:

"On cattle-breeding establishments on the pampas, where it is usual to keep a large number of fierce-tempered dogs, I have observed these animals a great deal, and presume they are very much like feral dogs and wolves in their habits. Their quarrels are incessant; but when a fight begins, the head of the pack as a rule rushes to the spot, where-upon the fighters separate and march off in different directions, or else cast themselves down and deprecate their tyrant's wrath with abject gestures and whines. If the combatants are both strong and have worked themselves into a mad rage before their head puts in an appearance, it may go hard with him; they know him no longer, and all he can do is to join in the fray; then, if the fighters turn on him, he may be so injured that his power is gone, and the next best dog in the pack takes his place. The hottest contests are always between dogs that are well matched; neither will give place to the other and so they fight it out; but from the foremost in power down to the weakest there is a gradation of authority; each one knows just how far he can go, which companion he can bully, when he is in a bad temper or wishes to assert himself, and to which he must humbly yield in his turn. In such a state the weakest one must yield to all the others, and cast himself down, seeming to call himself a slave and worshipper of any other member of the pack that chances to snarl at him, or command him to give up his bone with good grace" (24, p. 336).

"One primary object of a hostile meeting between dogs (as well as between higher animals) is to decide some question of precedence either general or particular. Now, if we could only settle which was the best man in any dispute by duels à autrance, a great deal of blood would be needlessly shed, and many valuable lives lost to the community. This introduction of moral weapons among social animals is, therefore, a great point gained, for injury to one is injury to all. The quick recognition of the superiority of a foe, and the perception of when submission should take the place of valor, is plainly of advantage to the individual, since a pig-headed obstinacy in resistance would frequently lead to elimination. Where in the serious business of life there is an interdependence of individuals associated for common ends, any influence which lessens the severity of civil conflicts tends to the general well being. Just as commanding officers have forbidden duels between members of an army in the field, so nature has among gregarious animals, and more especially among formidable carnivores, discountenanced internecine conflicts which might weaken the general efficiency of the pack" (24, p. 51).

How far rivalry among animals extends beyond the three

forms already treated is at most a question. That it has become an instinctive response to all situations involving a possible chance of surpassing another we have, I think, much evidence to show improbable. It is an instinctive response only when the situation involves the natural tendencies of the animal. The following instances will serve to illustrate this point, and at the same time to show the limited field in which rivalry works.

In the North of England dog racing has become a popular sport among a certain class of people. The most successful animal at present in this sport is the whippet racing dog. As racing is quite generally held to be actuated by the competitive instinct, I quote extracts from the report of the president of the Whippet Club.

"The best racing whippets are bred like race horses, through a long line of winners. To be of any use the dog must begin its education very young. As soon as it has been weaned it is kept aloof from its fellow-puppies and other dogs. From this day forward it lives the life of a hermit, having no friends and no enemies. The reason for this is that the dog will have to do his racing unjockeyed, so to speak, over a 200 yards course, and from the moment he leaves the "slipper's" hands he must never take his eyes off the "rag" which another man (the walker up) has carried before him up to the end of the course. If, then, he has been in the habit of chivying playmates, or fighting with strange dogs, there are ten chances to one he will prefer to indulge in these games up the course instead of honestly "running to the rag." If, on the contrary, he has never known the society of other dogs, it will rarely occur to a whippet to molest them. Those who turn out "stoppers," as they are called, are useless for racing, for they will never run in front. At the first Lancaster whippet race I attended a friend told me he was bringing out a whelp for the first time. It was 12 mos. old and had never run in company. I suggested it was a toss-up whether it would "run honest" or not and he was quite surprised at my doubts. But the whelp turned neither to right nor to left, and in company of five screaming dogs and between some thousand onlookers, ran as straight as a line from start to rag."

It seems quite evident without further comment that the dogs have no notion of beating each other, or they would not yield to the impulse of play in the midst of a race. And yet less would there be need of the rag after which the dogs run. It is probably the instinct or impulse to chase or to capture prey that has been utilized in this race that is not a race from the dog's point of view.

Horse racing is sometimes justified on the ground that the horses enjoy the contest. Indeed one often hears and sees the greatest pity for the horse which does not win. That rivalry plays a part in horse racing I think is questionable. Though the horse is very much influenced by the presence of another in the race, this does not signify that he has any clear notion of surpassing an opponent, and still more doubtful if he has

any instinctive tendency to outrun its kind. We do not see horses, either in the wild or in a state of domestication, contest with each other in races. Domesticated horses do run in play, and some particular individuals are generally in the lead. But there is little evidence of a contest, the leader in the play is naturally the swiftest and none run their best. Only under certain conditions does the running appear like a race, as for example should there be a gateway not wide enough to allow all the runners to pass at the same time, one on the outside may make a desperate attempt to get there first, when a race is on between this one and the head one, but when the point is passed the race is over. According to one writer the educability of the horse to racing is due to his sensitivity. This would be akin to reflex imitation. Does the horse learn to enjoy the race and especially to beat an opponent? I think not. A race horse I once owned would run only under certain conditions, viz., those under which he had been trained. This horse had been exercised in running by riding him out a distance of a quarter of a mile from his barn, then turning him suddenly off for a run back. Under these conditions he continued to respond long after his speed had left him, and always with as much vigor as when racing regularly on the track with other horses. Though this same horse was put out to pasture with other horses with whom he often ran in play, he showed no tendency to race, *i. e.*, to be first in the group.

Rivalry for leadership, then, is a struggle for supremacy. It is immediate and generally determined by force. The contestants continue to struggle until both are satisfied—one, that he is the victor, the other, that he is whipped. Individuals of opposing sexes do not generally enter into rivalry for leadership, but it is a law among gregarious animals of the same sex that order of supremacy must be settled on first acquaintance! This is frequently done by a mere show of arms, or it may be that disparity of size settles the question without demonstration. Whatever may be the source of this form of rivalry, it is now quite independent of the forms of rivalry earlier treated in this paper, though the emotions of hunger and sex may enter in as elements.

## II. HUMAN RIVALRY

Human rivalry is a subject upon which there is much difference of opinion. The situation takes on the form of a dilemma, one horn of which either party has grasped, without, at the same time, realizing that the problem involves another fundamental side. That it is a fact in human nature and has significance, both for the individual and for society, is apparent. What it appears to be in its incipient stages and in its higher

development the writer has attempted to indicate in the next few pages.

*Infant and Childhood Rivalry.* Though the infant may possess the potential factors of rivalry, the environment of its first years of life is not such as to bring them into prominence. It takes two to bring about a rivalry situation, and usually two of a kind. We are then practically limited to observations on twins, since babes of the same age are not much in each other's company. The following cases are in general characteristic of infant and early childhood rivalry.

"A pair of twin babies, perhaps six to eight months old, were brought to the hospital suffering from underfeeding and its results. They were both pitiable objects, merely skin and bones, but the boy was in worse condition than the girl. They were kept in the same crib and given as full a diet as was safe for their condition, and pushed as fast as possible in the feeding. The girl gained much faster than the boy, and was noticeably more active. Several times she finished her own bottle of milk first and was observed by the nurses to squirm around until she got her brother's bottle into her own hands, upon which she would empty that if she could in addition to her own. The boy ate only slowly and always had to be watched and coaxed to eat, seldom taking his full supply. The discarded bottle, therefore, often served as an additional supply for the girl unless it was at once carried away."<sup>1</sup>

B. One of twin boys 9 months old will snatch his brother's bottle, drink the milk, and then hit him with the bottle.

G. 1½. When mother took up her baby brother said, "Let him cry. Take me."

B. 2. Would not allow sister to touch his toys.

B. 2½. Showed a contorted mask of pain, spirited discomfort, and almost despair on birth of his brother.

B. 2½ having smashed a rival's toy said, "Now I guess you won't play with it." (19, p. 455.)

Infancy, though rich in spontaneous emotional expressions, is not easily analyzable into fundamental motives. For jealousy the infant furnishes a fruitful field for observation, since its emotions are undisguised. But jealousy has behind it a situation of rivalry. Looking upon rivalry as a response to a situation, jealousy would be the emotion resulting from the inhibition of that response. In the case of the twins mentioned above, the struggle is for food. The infant of six or eight months is successful in its efforts. There is no particular emotional expression, and above all no jealousy is mentioned or apparent. The infant perceived the situation, the impulse to get food passed over into action; satisfaction followed, with no farther cause of emotion. There is no evidence for concluding the case to be other than an impulse to take food. The child of nine months has put more zest into his action, and yet to attribute a motive of forethought to a child of nine months is to

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<sup>1</sup>Contributed by Dr. Caroline A. Osborne, Worcester, Mass.

overstate and destroy the force of the argument. It is quite probable that the child struggled to get its food, but that there was any motive in the blow with the empty bottle is at least questionable. That it was the result of an impulse for activity is more likely.

The disturbance on the advent of a new baby set up in the life of a child so young as two or two and one-half years is a matter of quite common observation. Judging from its emotional behavior the reaction may quite properly be termed jealousy. His chief concern is the attention of his parents. But if we consider rivalry a struggle for supremacy, then it may well be that the child, in the impulse to maintain his supremacy feels himself outraged at the intrusion. He is thwarted in his attempt, and his feelings overflow into the channels of expressive jealousy.

This jealousy is probably not other than a feeling for self. At this period the child is yet predominately sensuous. Each child has the same biological tendencies and needs. It seeks comfort and needs food, which it endeavors to secure. The mother is connected with both food and comfort, and probably is not much differentiated from either of the child's wants. The fact that a child very readily forgets its mother would indicate that jealousy at this rudimentary stage is no other than a feeling of well or ill being. The interference of satisfaction awakens the storm of feelings or dams up the tendencies and they overflow into emotional expressions.

All life is a reaction to its environment. The infant sets up a vigorous protest if you gently remove its bottle. This act is perhaps wholly an instinctive reflex. It is only one phase of the *will to live*. It is nevertheless an expression of the rudimentary self—a resistance that is basal to positive struggle in self-assertion. How much the cry of protest may be the overflow of feeling in a positive effort to grasp for the lost food cannot be known, but its vigorous movements with arms and legs as well as raising of the head are suggestive of directive muscular effort.

Another phenomenon which may be no less physiological at bottom, but involving a higher degree of consciousness, is the pleasant opposition of the child at about the age of 3 years. Baldwin's little girl (2 yrs.) when told a new taste was 'good' turned away with evident distaste when she had liked the same taste before. "When asked to give her hand into mine . . . she thrust it behind her back." The sight of hat and coat was a signal for a tempest, although she enjoyed out-door excursions. By the 3d year this child had become "as docile an imitator as one could desire."

But of adults he continues, "they seem only to wait indica-

tions of the wishes of others in order to oppose them." (2, p. 145.)

Pres. G. S. Hall, of Clark University, has collected a list of authenticated children's sayings which illustrate the same native tendency. The typical expression is an affirmation followed by a negation, as "I go in water, no!" the 'no' being very emphatic and uttered with great apparent satisfaction. The writer knows a child of three years which delighted in similar mono-debates, taking great pleasure in denying her own affirmative interrogations as, This flower pretty? if the answer was "beautiful" the retort would come with decided stern delight "No—not pretty—ugly!" Royce writes upon the same phenomena as follows:

"Side by side with the social processes of the imitative type appear another group of reactions practically inseparable from the former, but in character decidedly contrasted with them. These are the phenomena of social opposition and of the love for contrasting one's self with one's fellows in behavior, in opinion, or in power. These phenomena of social contrast and opposition have an unquestionably instinctive basis. They appear very early in childhood. They last in most people throughout life. They may take extremely hostile and formidable shapes. In their normal expression they constitute one of the most valuable features of any healthy social activity. This fact may be illustrated by any lively conversation or discussion." He makes the "instinct of opposition," lower down and more primitive than imitation. (Outlines of Psy., p. 277.)

Baldwin explains these oppositions as exaggerated instances of control. I should prefer to term them positive impulsive reactions. At least they are not purposive acts of self-control. It may be that this opposition is only a modified form of showing off or an impulse to attract attention by self-assertion. It is none the less a growth of the social ego. And this growth of the ego is the development of rivalry, *i. e.*, the expression of the self in the social environment carries with it an impulse to maintain itself in its new found and wider territory.

Jealousy plays, perhaps, a small rôle as compared with the tendency to hero worship. Children are forced by their very existence into a sense of comparative worth. Say to a child, John draws well and at once you get the prompt response: "I can draw better," or if he cannot draw at all he will inform you he can do something else better. Perhaps he can whip a certain boy and "John can't do that." For the boy, the physical hero is naturally the idol of his life. He wins the admiration of the school. Miss Smith, of the Worcester, Downing Street school, has made careful observations on boys and finds the above to be true, but an interesting excep-

## RIVALRY

tion proves that the physical hero is not lacking in all the qualities of a soldier he has won the admiration of all the school through his knowledge.

Showing off is strongly suggestive of competition. The cases given here are typical for boys from adolescence (23).

No. Age.

5. 2½ & 2. Showing off is characterized by attracting attention or turning somersaults for the pleasure of it.

9. 3. All are typical cases of self-exhibition.

17. 4. Self-exhibition dominant. One case is to compete.

7. 5. Ditto.

6. The coloring is changed somewhat. I make comparisons. He boasts that he can run higher than you."

16. 7. The boast has now grown to include other children's parents. They boast that their parents are greater, compared with other child's parents. But also are they elated over the fact that they are the best in the second reader while another is only in the first.

8. The comparative attitude is more pronounced than before.

12. If any further characterization can be given, it is that of intensive development of the individual.

Perhaps as characteristic a case is that of Knox of the boy who disobeyed his mother. "I wanted to beat you." The 'task' was prayer, repeating it after his mother. In other words, "Our Father," but in response came my father, and so on through the prayer. The confession was, "I wanted to beat mamma! Did I want to beat?" (Janette Hill Knox, *Child Psychology*, p. 166.)

Covering a period of 3 years, I had the opportunity of observing three boys, aged 3, 5 and 8. Roughly, the results were as follows. Under 4 or 5 the expression was "I can jump, run, whirl, or see what I can do." This was used much as would be any other article of clothing. Any conflict with them was not for the purpose of conflict but to rid themselves of an obstacle. At the age of 5 the expressions are comparative: "I am stronger than you," or "I can beat that." Likewise, at this time a transfer of interest from the act to the result of the play. It would seem the boy's interest was centered through an orbit the centre of which was the self. And seeing himself in comparison with others has an impulse to excel has a concrete and immediate application to work.

The child is not necessarily selfish, neit-

He is, however, biologically and instinctively self-centred. His incipient social traits are perhaps only the ejects of his own self, which he strives to extend by virtue of the feeling of comparative worth thus brought about.

*Adolescent Rivalry.* The natural unguarded tendency of the pre-adolescent at least of the male, is to struggle for physical supremacy. But with the dawn of adolescence the tendency to broaden out into a wider realm and social and ethical considerations determine the struggle of the individual. On this point Pres. Hall writes as follows: (21, ii: 363). "No creature is so gregarious as man, and we can hardly conceive him other than a *socius*. Individual differences are now greatly augmented. This impresses upon him that he has rank in the social scale and he is eager to know his place above or below. There is a new sense of passing an examination in the world's school and he is eager to stand high upon some of these multiple and lengthening scales. There arises a new social self-consciousness. Fame, renown, glory, leadership may now become ruling passions." Pres. Hall thus emphasizes the new social self-consciousness as a characteristic of the incipient adolescent period, likewise his ideals are higher and further away, now it is superiority—fame and glory. Until now life has been self-centred and egoistic. If it is yet so, it is a larger sense of self, it is one in which the individual finds superiority only as it is builded on the approval of the social environment. Perhaps here is a passing over of the instinct of rivalry from a struggle for supremacy to one of superiority, and we should no longer attribute the impulse of rivalry to the same source. With the new spring freshet, newativisms appear and all impulses vanish or merge into new ones. One chief characteristic is the nearness of, or perhaps, a deeper interest in the future, due no doubt to the dreams and reveries that well up in the germinating mind.

Studies on adolescence, reverie, day-dreams, bring out evidence of hidden tendencies that incite the individual to strive for superiority. Youth is a period when the individual is pulled strongly in two directions; he hesitates between the longing to be alone and the tendency to seek companionship. Lancaster found that 80% of normal adolescents love solitude, and that 80% of defectives dislike to be alone. (29, p. 97.) Galton concludes that gregariousness is detrimental to the development of individual initiative, and inconsistent in a normal healthy individual of middle life. It may be that the love of solitude, or desire to be alone is the same inner tendency that enables one to resist the pressure of society and stand out against its individual members, as the ox that feeds alone is the ablest leader of the herd. Dr. Theodate L. Smith concludes:

"Dreams of fame and future greatness rarely occur before adolescence. They vary from vague dreams of achieving honors in military or naval service, law, medicine, politics, music, acting, winning social or business success, to the attainment of some coveted school honor, having the highest marks, gaining honors at graduation, or being a leader in athletics. Football captained is often the highest pinnacle of fame to the aspirant to a college career." (22, p. 63.) A fair example of their dreams of superiority is that of a boy who dreams of riding in a bicycle race, winning out while thousands stand about looking on. Partridge's study concludes that "these elements of reverie are survivals of instinctive tendencies that are no longer of the same use they once were, that the function of reverie and imagination in general is to exploit the nascent organs of the mind." If we accept no more than the latter, we are at least obliged to accept the dream tendency as an incentive to action, and this in general is a struggle for superiority.

In response to a questionnaire, one question of which was: In what ways do you inspire pupils to greater effort, by inciting him to surpass his *own* rank in class, his *own* best attainment, the writer received 120 returns containing over 200 cases of self-emulation. The almost universal method is expressed in the words: "You have done well but you can do better," and in the majority of cases the effect was to renew the energy of the pupil. An eminent teacher states it has been a habit with him to point out a good point in an otherwise bad piece of work, but at the same time firmly to suggest further improvement, and this he has found a very great spur and incentive. The bulk of material on this phase of rivalry is pedagogical and we may defer treatment to the section on Education.

The foregoing matter selected from a large mass of data bearing on rivalry and related instincts is illustrative of a genetic sequence in development that is fairly well made out.

The first phenomenon that can be regarded as rivalry is the struggle for food. The child gradually reacts more definitely to comfort and discomfort stimuli; the emotional expressions which accompany such reactions are indicative of jealousy. Closely following this development, is that of contrary suggestion, *i.e.*, the child opposes all suggestion whether pleasant or unpleasant. Another rôle following is that in which the sense of self comes out strongly. The child is ambitious for display of his personal qualities. This leads to a general comparison with his fellows, and together with added interests in external objects develops an increased interest in competition. With the beginning of adolescence we have incipient the final stage in the development of rivalry, viz., a large tendency to struggle in the whole environment for superiority. This

struggle may be of a low or high order of morality, but mere supremacy is not its chief characteristic. In the latter the struggle is characterized by a desire to down a companion, in the former the individual wishes to demonstrate the superiority of his attributes and qualities as greater or larger than those of any others; it is not mere mastery. And the element of self-emulation is probably present in all striving.

*Rivalry in play.* A rich field for the study of rivalry is found in the instinct to play. Life here is unfettered. Emotions are undisguised and spontaneous. Gulick writes: "The chief interests and activities of the young of all races and of the higher animals, centre about play, and in no other direction may we expect to find dominant characteristics exhibiting themselves with the power and charms we may in this spontaneous play life."<sup>1</sup>

Mrs. Gomme has withal made the most extensive study of hereditary games. Her two volumes contain descriptive accounts of over 800 games. And though the object of the investigation was to find to what extent children perpetuate the form of serious activity of adults in their games, and classifications were made to this end, contest games are greatly in the majority. Games of skill and chance are next in number; the author states they are played for the "express purpose of winning property of some sort or to attain individual distinction."

"A survey of the classification scheme of traditional games introduces the important fact that games contain customs; in other words, that games of skill and chance have come down from a time when practices were in vogue which had nothing originally to do with games, and that dramatic games have come down from times when the action they dramatize was the contemporary action of the people." In seeking a psychological explanation for the continuance of games, Mrs. Gomme concludes as follows:

"There must be some strong force inherent in these games that has allowed them to be continued from generation to generation, a force patent enough to compel their continuance and prevent their decay. This force must have been as strong or stronger than the customs which first brought the games into existence, and I identify it as the dramatic faculty inherent in mankind."

After careful study of the above mentioned work the present writer would conclude of the whole as the author has of the "line games": "The chief point of interest lies in the fact that they are all governed by the common element of contest" (17, p. 489). And this conclusion is borne out by Croswell's study

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<sup>1</sup>Ped Sem., Mar., 1889, p. 125.

which shows traditional games to be most popular at the age when competition is very intense, viz., at about the 14th year.

This element of contest or of rivalry is not equally prominent in plays for all ages, but has a gradual development, as is shown by the preferences for contest plays as children grow older.

Supt. Johnson finds five characteristic divisions in the play life of the child. In the *first period*, from 0-3, is a gradual development from experiments with the senses to free play. The second period, 4-6, is characterized by greater physical activity and control, is "individualistic rather than co-operative." The third period, 7-9, is marked by a transition of interest from activity for *its own sake* to interest in control of environment and in activity for the *end's sake*. And along with this interest in end and result the elements of skill and competition appear as dominant factors. Johnson adds a list of games involving trials of physical and mental strength, and says "they are generally played under the spur of emulation."

The fourth period, 10-12, shows little change so far as rivalry is concerned, except that self-assertion is prominent and co-operation developing. The fifth period (ages 13-15), is set off by the characteristic adolescent qualities. But significant to our purpose is the fact, as the author states it, that "the game interest centres more and more in co-operative and competitive games."<sup>1</sup>

Similar results were obtained by Zach. McGhee in his study of South Carolina children between the ages of six and eighteen. Games common to the locality were listed and read to the children, who then underscored their choice. 8,718 children were consulted, 3,958 boys, and 4,760 girls. The games were analyzed and classified according to the dominant interests found in them, which interests proved to be as follows: *running, chance, imitation, rivalry, co-operation*. Charts showing the curve of these elements were then constructed. At the age of six, 45% of the choices made by the boys, and 20% of the choices made by the girls were for games of rivalry, while at the age of eighteen these percentages stood 63 and 68 respectively. The curve for both rises steadily, but that for the girls more rapidly and crosses the boys' curve at 17½ years. In this connection it is interesting to note that for the boys the choice for co-operative games about parallels the choice for competitive games, while for the girls the curves representing the same preferences are widely apart. For the boys the choice for co-operative games starts with 28% at six years of age, and ends with 40% at eighteen. At six years of age the girls' choice

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<sup>1</sup> Educ. by Plays and Games, p. 207.

stands at 10%. It fluctuates a little from this on and rests again at 10% at eighteen. These results are largely verified by Croswell's study, "Amusements of Worcester Children." He finds: "Eight of the first 10 amusements of the boys, 15 of the first 25, and 30 of the first 50 are of a distinctly competitive character."

The force of the above showing is somewhat broken by the following quotation from McGhee's work:

"These two elements, rivalry, and co-operation are hardly to be compared with the others at all. Wherever rivalry enters into a play at all, it is a 'dominant' element, because the object of the game is to beat the opponent; but the activities, mental or physical, brought into play in doing this, determine the preference for any particular plays. As an illustration, in the games crokinole and parchesi there is the same element, rivalry. In each the object of the game is to beat an opponent: one prefers to do this by excelling in skill another prefers to excel in hunting; and so on." (36, p. 463), and yet, though rivalry is very extensive, the above curve does show the intensity with which it enters into the life of the child. McGhee notes the desire for excellence in connection with rivalry. Croswell says of "*the development and exercise of skill*: It enters nearly all competitive games, where the conscious desire of mastery is likely to be the strongest motive, as seen in the little girl of eleven who liked to play tag best because she could "run fastest." This case is one in which it is not certain whether the love of mastery or the desire to stand first among her fellows is the ruling motive; if the latter, rivalry is the motive force behind skill.

The foregoing studies on play and play life lend support, not only to the great rôle rivalry plays in childhood and youth but also in large measure confirms the genetic sequence already mentioned. The works of Johnson, McGhee, and Croswell, especially reinforce each other on the point of gradual extension and intensifying of the instinct of rivalry from childhood up to adulthood.

We have seen that rivalry is in its first crass beginnings struggle for food, that in its varying forms through pre-adolescence it is desire to be first, but that adolescence introduces various elements which make for indefiniteness in the working of this impulse. The writer believes that at this period there is an incipient underlying motive which marks the higher development of rivalry. This motive we may designate by desire for superiority. Chiefly to make clear this point I present the following material on the primitive American. It is perhaps too limited in scope; but from the vast mine of literature on

primitive people in general, this is illustrative of both the adolescence of the race and of the individual.

Culin has classified the games of North American Indians under two heads; chance, and skill. (10, p. 5.) Games are universal among the Indians of America and almost an integral part of his life. Dice is played by two or by any even number of persons. This game is usually played for a wager and thus takes on the nature of gambling, but this perhaps serves only to augment the feeling of rivalry, not to lessen it. We might say of all North American Indians: "Most of the leisure time, either by night or by day, among all these nations is devoted to gambling in various ways. . . . Every day and night in the soldier's lodge not occupied by business matters, presents gambling in various ways all the time; also in many private lodges the song of hand gambling and the rattle of the bowl dice can be heard."

After describing the order of the game the report adds: "At this stage of the game the excitement is very great. The spectators crowd around and intense fierceness prevails. . . . If the loser be completely ruined and a desperate man, it is more than likely he will by quarrel endeavor to repossess himself of some of his property, but they are generally well matched in this respect, bloody struggles are often the consequence. . . . It is, however, considered a mark of manliness to suffer no discomposure to be perceptible on account of the loss, but in most cases we imagine this a restraint forced upon the loser by the character of his adversary."

There are a number of instances, where there is no stake for which to play, in which general jollity prevails; but the awkward play brings out a whole repertoire of gibes for the benefit of the unfortunate.

"Challenges were often sent from one village to another and were even exchanged between nations, to a contest of some of these games. In such cases the chosen players of each community or nation were called out to contend for the prize of victory. An intense degree of excitement was aroused when the champions were the most skillful players of rival villages or adjacent nations. The people enlisted upon their respective sides with a degree of enthusiasm which would have done credit both to the spectators and contestants at the far famed Elian games. For miles, and even hundreds of miles, they flock together at the time appointed to witness the contest.

"Unlike the prizes of the Olympian games, no chaplets awaited the victors. They were strifes between nation and nation, village and village, or tribe and tribe; in a word, parties against parties, and not champion against champion. The prize contended for was that of victory; and it belonged,

not to the triumphant players, but to the party which sent them forth to the contest." (10, p. 115.)

Morgan states further that when the contest was not between the divisions above named or on a formal challenge, "the community would arrange itself on opposite sides according to their totemic origin, and in this fashion contend for the prize, often families would be divided and on opposite sides.

. . . . The excitement and eagerness with which he watched the shifting tide of the game was more uncontrollable than the delirious agitation of the paleface at the race course, or even at the gaming table, their excitable temperaments and emulous spirits peculiarly adapted them for the enjoyment of their national games."

Dr. C. Lumholz writing of the ball game, a very popular game among Indians, says, "there is no prize given to the runners themselves and they gain nothing by it unless in helping their neighbors to win wagers." Of the women he writes: "Women hold their own races, one valley against another and the same scenes of betting and excitement are to be observed, although on a smaller scale." (10, p. 675.)

In a report from Fort Sumner, New Mexico, John C. Cremony states that "foot racing is a frequent diversion reverted to by the active and restless Indians, and the women generally manage to carry off the palm, provided the distance is not too great."

The above citations are representative of North American Indians, at least. The contests, in almost every case, can be resolved into a struggle for personal distinction, and this distinction is won by demonstrating one's comparative superiority over that of his fellows. So well satisfied is the victor that, unlike the Olympian winner, he is not even awarded a badge. There is often manifest fierce vengeance when a loss, not of material worth, but of personal distinction, is sustained. Or it may be the feeling for supremacy is satisfied by seeing a rival with a besmooted face. In a vast majority of cases the stake is not sufficient in value to warrant the demonstration of feeling accompanying the reward. The author has witnessed many of the games played by Indians of the West and Middle West, and thinks the thing always uppermost in the minds of the participants is the desire of superiority. It is never difficult to detect this emotion, though many of the Indians are stoical and try to suppress any expression or show of feeling. The careful study of the life of the Kwakiutl Indians by Dr. Boas reveals this phase of human nature perhaps better than any other work extant on primitive people. For its great significance and direct bearing on the problem in hand I give it at length.

The Patlatch, an institution which pervades the whole social life of the Kwakiutl Indians, is actuated by a spirit of rivalry. A child is given the name of the place in which it is born to be kept for one year. At this age it receives a second name and its parents give a paddle or a mat to each member of the clan. When ten or twelve years old it is given a third name, and the boy must distribute single blankets or small trinkets among his clan or tribe. (He is liberally assisted by elders and parents.) The unit of value was a single blanket (3, p. 341).

"Possession of wealth is considered honorable, and it is the endeavor of each Indian to acquire a fortune. It is not the wealth he desires so much as to be able to give great festivals. His importance is augmented as he is able to distribute more and more property with each succeeding festival." Therefore boys and men are vying with each other in the distribution of property. Boys of different clans are pitted against each other by their elders, and each is exhorted to do his utmost to outdo his rival.

And as the boys strive against each other, so do the chiefs and the whole clan, and the one object of the Indian is to *outdo his rival*. Formerly feasts of bravery counted as well as distributions of property, but nowadays, as the Indians say, 'rivals fight with property only.' The clans are thus perpetually pitted against each other according to their rank. The Kwakiutl are counted as the highest in the order given in the above list (omitted here). In intertribal rivalry they do not strive against each other, but the Kwakiutl against other tribes."

"There is still another method of rising in the social scale, namely, by showing one's self superior to the rival. This may be done by inviting the rival to a festival and presenting him with a large number of blankets. He is compelled to accept these, but is not allowed to do so until he has placed an equal number on top of the pile offered him. . . . He then becomes debtor to the amount and must pay it back with 100% interest" (3, p. 343). A similar proceeding takes place when a canoe is given to a rival, the latter when the canoe is presented to him must put blankets on it to one-half the value of the canoe. . . . Later on the recipient must return another canoe with an adequate number of blankets as an 'anchor line' for the canoe."

"Still more complicated is the purchase or the gift, however one chooses to term it, of the 'copper.' All along the North Pacific coast this copper is used. Its actual value is slight, but its fictitious value is determined by the number of blankets it represents at different sales. . . . When the buyer is ready, he gives to the owner blankets to  $\frac{1}{2}$  its value. The owner of the copper loans these blankets out. When he has called them in again he repays the purchaser with 100% interest."

"Coppers are always sold to rivals, and often a man will offer his copper for sale to the rival tribe. If it is not accepted, it is an acknowledgment that no one in the tribe has money enough to buy it, and the name of this tribe or clan would consequently lose in weight. Therefore if a man is willing to accept the offer, all the members of the tribe must assist him in this undertaking with loans of blankets."

The rivalry between chiefs and clans finds its strongest expression in the destruction of property. A chief will burn blankets, a canoe, or break a copper, thus indicating his disregard of the amount of property destroyed and showing that his mind is stronger, his power greater than that of his rival. If the latter is not able to destroy an equal amount of property without much delay his name is 'broken.' He is vanquished by his rival and his influence with his tribe is lost, while the name of the other chief gains correspondingly in renown.

"Feasts may also be considered as destruction of property, because

the food given cannot be returned excepting by giving another feast." The most expensive sort of feast is the one at which enormous quantities of fish oil are consumed and burned, the so-called "grease feast. Therefore it also raises the name of the person who can afford to give it, and the neglect to speedily return it entails a severe loss of prestige" (3, p. 354).

"Still more feared is the breaking of a valuable copper. A chief may break a copper and give the broken parts to a rival; if the latter wants to retain his prestige he must break one of equal value or greater, and then return the fragments of both to his rival." The latter may then pay for the copper which he has thus received. The chief to whom fragments were given may break his own and throw both into the sea. The Indians consider that by this act the attacked rival has shown himself superior to his aggressor, because the latter may have expected to receive the broken copper of his rival in return so that an actual loss would have been prevented."

"Property may not only be destroyed for the purpose of damaging the prestige of the rival, but also for the sole purpose of gaining distinction.

"The distribution or destruction of property is not always made solely for the purpose of gaining prestige for one's self, but it is just as often made for the successor to the name" (3, p. 357).

As in the plays of the North American Indians, so here in the *Patlatch* the desire for self-exaltation is not so much to put down as to be superior to another. And it may be added not so much to lead or control as to stand out as the greatest.

The rôle rivalry plays among the Wakiutl people is very great. It begins in childhood and extends on into old age when it ends only by striving for the successor to the name. Thus the fundamental impulse is at once individual and social. There is a desire and a struggle for property, but the peculiar method of giving away and destroying it makes it secondary to the more spiritual desire for superiority, which property mediates. This is shown conclusively in the fact that destruction of property is the greatest testimony to greatness. He thus shows his "mind stronger, his power greater than his rival." In the cases cited above it would seem this higher form of rivalry fosters self-control, honesty, and square dealing. On the co-operative side it is a strong factor in cementing the social fabric together.

*Rivalry and Mutual Aid.* The different meanings attached to the term rivalry are not without significance. The Greek word *ζγλος* = eager rivalry, emulation (also jealousy) the root meaning is probably "to boil," hence an ardent or passionate emotion. *βυλοτυμία* = rivalry (envy) *ἡ αδ' μίλλα* = a contest for superiority, rivalry, *ἡ παδαζγλωσις* = emulation, being a rival with another, in which *παδα* indicates reciprocity of action with another. The different meanings in the Greek we find, then, to be ardent emotion, superiority, and an element of co-operation with, not antagonism. The origin from the Latin is seen in the use of the word "rivalus," "one who has a right to the same brook," involving essentially the thought of co-operation or sharing.

The German language has the word *Wetteifern* or *Wetteifern mit*. While the French lexicon gives the secondary meaning as *rivaliser avec*. It is significant that in both French and

German the preposition *with* and not *against* is used. The Swedish tongue has the word *Taflan*, which means to vie without any special color, and secondly to contend with another for a position. *Tflaan*, a synonym for *Aregirighet* is honor plus jealous desire or jealous desire for honor.

In organic life mutual aid is a factor closely related with rivalry. Lower organisms present close analogies to voluntary mutual aid. Bose, basing his conclusions on experimental evidence, finds that "the plant persists, . . . because it is perpetually in tune instead of perpetually at war with its surroundings."<sup>1</sup>

Magee writes: "Although the animals and plants of Papagueria display pronounced individuality, and although some of their most prominent features are adaptive devices for securing independence, a striking peculiarity of the region is the co-operation among living things. Along the lines of groundwater the species are measurably or wholly antagonistic to their neighbors of distinct species; but over the arid uplands and in the broad waterless valleys all plants co-operate not only with plants of distinct species, but with animals, for the maintenance of common existence."<sup>2</sup>

Kropatkin asserts, from what seems to be adequate data: "Happily enough, competition is not the rule either in the animal world or in mankind. It is limited among animals to exceptional periods, and natural selection finds better fields for its activity. Better conditions are created by the *elimination of competition* by means of mutual aid and mutual support." A striking illustration given is that of a Molucca crab. He reports: "One of them had fallen upon its back in a corner of a tank and its heavy saucepan-like carapace prevented it from returning to its natural position, the more so as there was in the corner an iron bar which rendered the task still more difficult. Its comrades came to the rescue and for one hour's time I watched how they endeavored to help their fellow prisoner. They came two at once, pushed their friend from beneath, and after strenuous efforts succeeded in lifting it upright, but then the iron bar would prevent them from achieving their work of rescue, and the crab would again heavily fall back."

Mutual aid in human society, especially under adverse conditions, is, perhaps, no less frequently met with than in other organic life. Darwin has said: "Not until we reach the extreme confines of life, in the arctic region or on the borders of a desert will competition cease." (11a, p. 95.) Peary has virtually reached the confines of life in the arctic region, and has

<sup>1</sup> Bose: *Plant Responses*. Longmans, p. 753.

<sup>2</sup> Magee, W. J.: *The Beginning of Agriculture*, p. 364.

indeed found competition a small factor and mutual aid the rule.

Of the Smith Sound Eskimos he writes: "This little tribe . . . they number but one hundred and fifty-three in all . . . is found maintaining its existence in complete isolation and independence, under the utmost stress of savage environment, without government, without religion, without money or any standard of value. . . . With habits and conditions of life hardly above the animal, these people seem at first to be very near the bottom of the scale of civilization, yet closer acquaintance shows them to be quick, intelligent, ingenuous, and thoroughly human." . . . Every man owns the whole country and can locate his house and hunt where his fancy dictates. The products of the hunts are common property with slight limitations, as, for example, anything smaller than a seal is the property of the hunter who captures it; yet unwritten laws require him to be generous even with this, if he can do so without starving his own family." "In disposition and temperament these people are a race of children, simple, kindly, cheerful and hospitable." (40, p. 492.)

Rink, who is an authority on the Eskimos, says of their social customs: "*All kinds of game or animals which happened to be rare*, on account of size or other unusual circumstances, were more than ordinary species considered common property." (Tales and Trad. of Eskimo People, p. 28.) Nansen dwells more especially on the sociability of the Eskimo: "*His first social law is to help his neighbor.* . . . Hospitality to strangers is a no less binding law among the Eskimos than helpfulness to neighbors. The traveller enters the first hut he comes to, and remains there as long as convenient. He is kindly received and entertained with what the house can offer, even if he be an enemy." Even a murderer is treated as well though hated. Upon the hospitality and mutual aid Nansen observes: it "is of course forced upon them by their natural surroundings, for it often happens that they are overtaken by storm when far from home, so that they are compelled to take refuge in the nearest dwelling-place." (37, p. 117.) "A hard life has taught the Eskimo that however capable he may be, and able as a rule to look after himself, there may come times when, without the help of his fellow men, he would have to go to the wall, therefore it is best to help others." Nansen laments that, as he advances in civilization, the commandment—"all things whatsoever ye would that men should do to you, do ye even so to them," seems to lose its power over him. (37, p. 116.) "Greed and covetousness—vices which they formerly abhorred above everything—have taken possession of them, their minds are warped and enthralled by money." (37, p. 336.)

Madam Pommerol says of the inhabitants of the Sahara that the people of the towns and the nomads are enemies by caste and race, but allies in interest. The nomads need refuge and shelter. The townspeople need messengers and transportation. Hence, ties of contract, quarrels, fights, raids, vengeances, and reconciliations for the sake of common enterprises of plunder. (44, p. 18.)

Not unlike the mutual aid of the Eskimos which Peary and Nansen describe is that found in the slums of large cities. Jane Addams, who is an authority in this field, writes in her Democracy and Social Ethics, p. 19: "A very little familiarity with the poor districts of any city is sufficient to show how primitive and genuine are the neighborly relations. There is the greatest willingness to lend or borrow anything, and all the residents of the given tenement know the most intimate family affairs of all the others. The fact that the economic condition of all alike is on a most precarious level makes the ready outflow of sympathy and material assistance the most natural thing in the world. There are numberless instances of self-sacrifice quite unknown in the circles where greater economic advantages make that kind of intimate knowledge of one's neighbors impossible. An Irish family in which the man has lost his place, and the woman is struggling to eke out the scanty savings by day's work, will take in the widow and her five children who have been turned into the street, without a moment's reflection of the physical discomforts involved."

From the foregoing data it appears that mutual aid is a factor in evolution no less than rivalry. But the question remains whether or not they are mutually exclusive of each other. That they are instinctive and are found in the same organism or animal is evident. Magee lays particular stress upon the co-existence of co-operation and strong individuality in the same plant. The case of the aid rendered the unfortunate crab by his companions is no disproof of the force of rivalry. The writer has noted that the cattle of the pastures and prairies do not thus assist unfortunate companions but habitually gore to death any one of their number which may be fast or seriously disabled. These same cattle join forces in fighting a common enemy, as a dog, an intruder from another drove, or a human being. Everywhere we see evidence of co-operation against enemies, or for advantage in struggle for existence. In my study of birds in the wild, I have found such instances. On disturbing a robin's nest the alarm given brought a large number of robins from all parts of the forest to attack the intruder; but hardly had the new-made flock disbanded when the male robin cruelly expelled a member of his first brood.

from the tree in which was situated the nest of his second brood now four days old, and summarily dismissed a fellow male which had lingered too long about the premises he had come to assist in defending. We have already noted the case of the dogs which co-operate in the hunt but compete in devouring the prey.

Among human beings co-operation or mutual aid may under certain conditions be the first law, as we have seen is the case with the Eskimos and inhabitants of the slums. But it is seen to give way when external pressure is removed. The Eskimos assert their individuality when the support of their fellows is not immediately imperative. It has been noted, as we see in the foregoing citations, that mutual aid and co-operation are natural when environmental conditions are hard and pressure falls upon all alike.

Whether this shall be taken to indicate the dominance of rivalry over co-operation and to signify one as less or more generic than the other, is in the writer's opinion a problem. It perhaps would point to man's being first social, then individual, and that over-individuation takes place when the natural environment, *i. e.*, inorganic nature, is less resistant to the needs of the individual. The view taken by Cooley is that "neither is prior in time nor lower in rank than sociality," but that they are complimentary aspects of the same thing (8, p. 11).

In locating rivalry, we are forced to place it among the social elements. It could not have developed outside the social group. Perhaps rivalry began when the first cell divided and each separately entered the same field for the same food. No doubt the first struggle was for nourishment, but the individual in the course of development found himself thus acting against his kindred companions, and a part of the energy expended in obtaining food must be expended in thwarting others in a similar quest. It would be another thesis to show how society has developed out of this rivalry in life. For our purpose it is sufficient to note, as we have above, its probable origin and its place in the social whole.

### III. RIVALRY IN EDUCATION

The two opposing views, one individualistic, the other social, now so prominent in various interests of life, together with the tendency to characterize American schools as effeminate, should make the subject of rivalry a vital one to education. The aim of the writer is to present, in the following pages, such data as shall indicate the rôle rivalry has played in pedagogy from primitive times to the present. The material gathered from various available sources is much condensed, but it is

believed a fair perspective has been given of each system mentioned.

#### A. RIVALRY IN DIFFERENT COUNTRIES

*India.* Philosophically the Hindu has no occasion to compete with his fellow men; for him things of this world tend to evil. Besides the belief in metempsychosis makes it necessary that he should treat his fellows with kindness, and still more, the final absorption into the all, nirvana, leaves no room for favoritism in his heaven. The ideal is complete abnegation of the self. The great stimulus may come from the relative progress the self makes toward complete absorption. The aspirant must attain to the superior state through self-effort, and it is possible that through this sort of self-emulation the Hindu is sustained in his efforts toward the ideal and superior state. By way of parenthesis we may note here that the Hindu has attained to a recognized superior intellectual plane, and that he has done so without the distracting influence of active rivalry.

The Hindu is noted for his calm self-possession and peaceful disposition, likewise for the mild discipline of his school and the absence of competition. The laws of Manu state that instruction shall be given without unpleasant sensations and that the teacher shall use sweet and gentle words. So true do they seem to be to Manu's law, that teaching in the elementary schools was largely a matter of mutual instruction, a sort of spontaneous co-operation, which gave birth to pupil teaching. However, harsh discipline and rivalry were present. There is an Hindu maxim that the child's bones belong to the parent and its skin to the teacher. The child early at school was branded "chief," the tardy child, laggard. A dash of cold water was also allowed as a means of discipline. Hindu education is sustained, then, by means of rewards and punishments which tend to foster rivalry. In its highest phase, however, self-emulation is the chief stimulus.

*Egypt.* The data available on early Egyptian education is in general of doubtful authenticity. However, there is very plausible evidence at hand regarding the attitude of teacher to pupil, and the method of stimulating to industry. A boy writing to his former teacher respectfully recalls: "Thou didst beat my back and the instruction went in at mine ear . . . (17, p. 329). Thou hast made me buckle to since the time I was one of thy pupils." Likewise did they appeal to the child's love of ease, popularity and power: "Behold there is no profession which is not governed. It is only the learned man who rules himself" (17, p. 328).

"He whose name is unknown is like the heavy laden don-

key; he is driven by the scribe. Therefore set to work and become a scribe, then thou shalt be a leader of men." The deeds of Nechtsotep, a most excellent scribe with an understanding heart, who knows everything, who is a lamp in the darkness before the soldiers and enlightens them" (17, p. 381), are set forth in a book very much used in the schools. The pupil was also led to compare himself with others. "The books are already in the hands of thy companions," is the savage admonition of a tutor. But the teacher's chief support was the rod. He argued: Animals are trained by beating, why should not boys likewise be broken in? "The youth has a back; he attends when it is beaten" (17, p. 330).

It is withal quite clear that education in Egypt from a very early date has been extremely artificial, and that the dominant, childish instincts were suppressed. The motives addressed are fear, selfish desire for personal comfort, and general supremacy. In so far as supremacy and superiority are emphasized the appeal is to rivalry, but the rod is the chief stimulus to study.

*China.* Education in China has been sustained and promoted chiefly by appealing to the instinct of rivalry. An examination is held once a year in each county (*hien*). Boys just entering their teens, and frequently men in the seventies, take part in these examinations. The test is on penmanship and grace of diction, and the reward is the degree of "Budding genius," which exempts the recipient from liability to corporal punishment, and in social standing raises him above the common herd. The successful candidate finds himself one out of one hundred on the highway to the next examination, which is held once in three years at the provincial capital.

This trial extends over three sessions of three days each, and aims to test the candidate in both prose and verse, also on the extent of his reading and depth of scholarship. Again his reward is honor, not pay. He is privileged to wear a cap with gilded buttons of high grade, to erect a pair of lofty flag staves before the gate of his family residence and to place a tablet over the door which proclaims to the world that he is a literary prize man.

The following year the final test for office takes place at the capital of the empire, extending over thirteen days. This examination places the successful candidate firmly in line for a position—mayor or sub-mayor, with chances of promotion. There is yet another chance to compete before the emperor, who may select one from hundreds as laureate. He is the consummate flower of literary perfection—one in four hundred million.

The child's preparation for this competitive machine is par-

ticularly devoid of rivalry. At the age of seven or eight years he is sent to school where he learns by rote the Chinese characters. He studies by himself and recitations are individual. For any lack of diligence or failure to recite well, he is thwacked on the head with a stick. Martin writes: "It would seem, indeed, as if the wise ancients who devised it (the discipline) had dreaded nothing so much as early development, and like prudent horticulturists, resorted to this method for the purpose of heaping snow and ice around the roots of the young plant to guard against its premature blossoming. . . . Even the stimulus of companionship in study is usually denied." "At this period fear is the strongest motive addressed to the mind of the child. Severity is accounted the first virtue in a pedagogue, and its opposite is not kindness, but negligence."

There are but two roads open to the youth of China; trade or the classics. The former is so much inferior that the latter is chosen by those who seem to have a chance at all. And having once chosen his career there is no chance of success excepting by the way of competition for office.

Even in so stereotyped a system of education as that of China the stimulus to intellectual achievement is not simple. However, it does not seem to come from anything inherent in the subject matter of study, but rather from external sources. The honor of being above the common herd we have seen is very strong. The exemption from corporal punishment is likewise desirable and gives one a semblance of supremacy. The glory reflected upon forefathers and family is not an inconsiderable motive. Social standing is a strong inducement and yet the feeling of approbation need not enter here, for society is bound to applaud, not because the hero has pleased them, but because he has achieved an intellectual feat that can have no bearing on their welfare. The selfish motive predominates, and Martin has pointed out that often the official incumbent is tyrannical in proportion to the difficulty he has experienced in passing the examination. The fault of the system is not in the use of rivalry, but in the lack of it. Rivalry is stereotyped and grooved. Superiority is not achieved through personal struggle with one's fellowmen, but upon one's standing in a set and determined scale. The whole man with his natural endowment is not brought into play, but only so much as will allow him to master the classics.<sup>1</sup> The present best account is that given by Martin (35).

*Greece.* Education in Sparta and Crete was a life of contest. Rivalry was a constant factor, but unlike the Athenians the

<sup>1</sup> The Chinese educational system has been much modified within the past three or four years, but no authoritative account has yet come to hand.

Spartans were given to harsh and cruel methods. "The older men stirred up quarrels among the boys in order to see who was plucky. Fighting was encouraged at all ages; there were organized battles somewhat resembling football matches, for the epheboi. . . . The epheboi fought with their hands, kicked, bit, and even tore out one another's eyes, in the endeavor to drive the opposing team back from the water."<sup>1</sup>

"The grown men were also encouraged to fight by the following device. The Ephors selected three of them who were called Hippagretal. Each of these three selected one hundred companions, giving a public explanation in each case why he chose one man and rejected the others. So those who were rejected became foes to those who were selected, and kept a close watch over them for the slightest breach of the accepted code of honor. Each party was always trying to increase its strength or perform some signal service to the State, in order to strengthen its own claims. The rivals also fought with their fists whenever they met."<sup>2</sup>

"There were posts of honor and of dishonor, as in battle, cowards usually receiving the latter."<sup>3</sup> Cretan boys were always fighting either single combats or combined battles against the boys of another club school" (18, p. 37). "On certain fixed days "pack" joined battle with "pack," to the sound of lyre and flutes and in regular time, as was the custom in war, fists, clubs, and even weapons of iron might be used. It was a regular institution, half dance, half field-day, with fixed rules and imposed by law."

"Every city, and probably most villages, had local competitions annually, and in many cases more frequently still, in which some of the "events" were reserved for citizens, while others were open to all comers. There were separate prizes for different ages, the ordinary division was into boys and grown men. . . . These competitions were no doubt largely athletic. But music was usually provided for as well, and in many places there were literary competitions" (17, p. 63). It appears that different fraternities gave prizes annually to the boys who made the best recitation. Kritias took part in the competition when ten years old.<sup>4</sup>

Spartan education was not all harsh; "every boy had a tutor, selected through mutual esteem, bound together by no economic ties, but by those of friendship and affection" (36, p. 78).

Education in Athens, however, quite as much as in Sparta or in China, was stimulated by competition, and the child as

<sup>1</sup> Paus. iii, 14, 2 (18).

<sup>2</sup> Paus. iii, 14, 2.

<sup>3</sup> On festive occasions.

<sup>4</sup> Plato, Tim. 21 B. (18, p. 63.)

much driven as led. "He cannot say anything without their setting forth to him that this is just and that is unjust, this honorable, that dishonorable; . . . do this and abstain from that, and if he obeys, well and good; if not, he is strengthened by threats and blows, like a piece of warped wood. . . . When the boy has learned to read, they put into his hands the works of great poets, which he reads at school. In these are contained many admonitions and many tales, and praises and encomia of ancient famous men, which he is to learn by heart in order that he may imitate or emulate them and desire to become like them" (Plato, *Protagoras*).

"Games and physical contests were not indulged in haphazard as with the modern youth. Nor were the standards of excellence the same as modern ones. Success consisted not so much in the winning of the contest as in the evidence given of the proper form of the exercise, the graceful and dignified carriage, the control of temper, and of skill" (36a, p. 88). And Laurie writes:

"The Olympic dust was the richest treasure which a young Greek could gather. . . . Here the victor was raised to the elevation of the gods themselves. Poets like Simonides and Pindar sang immortal songs in his praise; the best cities were anxious that he should be enrolled among their citizens; and when he reached his home, the gates and part of the city wall were pulled down in token that a city which produced such men needed not the protection of walls" (30, p. 113).

"And for what did they contend? Not for money rewards, but for glory alone—their success being signalized by a reward in itself worthless. At the Olympic games, an olive crown or garland; at the Isthmian, one of pine; at the Nemean, one of parsley; at the Pythian, apples from the trees sacred to Apollo; and at the Panathenaea, olives from the tree of Minerva" (30, p. 213-14).

*Rome.* It is not probable that the Romans conceived of any milder incentive to study than the strap. Laurie (30, 344) refers to Horace's *Orbilius Plagosus* (Ep. II, 1, 70), who transferred to the school the discipline he had learned to suffer and enforce as a soldier," also quotes Martial (ix, 69) who says:

Despitful pedant, why dost me pursue,  
Thou head detested by the younger crew?  
Before the cock proclaims the day is near  
Thy direful threats and lashes stun my ear. (30, p. 344.)

This is no doubt a fair sample of the incentive offered the Roman schoolboy. Quintilian gives a reminiscence which indicates that rivalry is beginning to take the place of harsh punishments.

"I remember a practice that was observed by my masters,

not without advantage. Having divided the boys into classes, they assigned them their order in speaking in conformity to the abilities of each, and thus each stood in the higher place to declaim according as he appeared to excel in proficiency. Judgments were pronounced on the performances; and great was the strife among us for distinction, but to take the lead of the class was by far the greatest honor. . . . The 30th day brought the vanquished an opportunity of contending again. Thus he who was most successful did not relax his efforts, while uneasiness incited the unsuccessful to retrieve his honor. I should be inclined to maintain, as far as I can form a judgment from what I conceive in my own mind, that this method furnished stronger incitements to the study of eloquence than the exhortations of preceptors, the watchfulness of *paedagogi*, or the wishes of parents.<sup>11</sup>

Spartan education represents a type of training in which rivalry is dominant but from which the fighting instinct is not separated. Rivalry in its purest form exists between pupil and pupil; between groups of pupils, and between different schools. The incentive to rivalry was the arousal of the primitive emotions—anger and hatred. Punishments were administered but rewards consisted of approbation rather than material gains. Athenian education, besides having all the above mentioned advantages, has inherent in it what has been called self-rivalry. It reveals as the dominant motive in rivalry, superiority. But also there is the element of self-mastery, which necessitates that the individual surpass himself quite as much as his fellow competitors. Besides the above it is evident that the whole self is brought into play in the rivalries, whereas in the preceding systems and in many that shall follow the lines of rivalry are narrowed to a small number of human attributes. We may also note the falling out of harshness of treatment as the type of rivalry rises, and supremacy is replaced by superiority.

*England.* It seems a far cry from ancient Greece and Rome to modern England, but something of the same educational method has prevailed in the English schools. An official report for 1864 (41a) contains sections on "punishments and stimulants to industry" which might be written "appeal to rivalry" without doing injustice. The nine public schools, to which chief attention is paid, present some minor differences, but in general they reveal the same attitude toward rivalry.

The following is characteristic of the reports in general. "The chief punishments at Winchester, as elsewhere, are flogging and impositions. The practice of giving impositions to be written out is, however, adopted more sparingly and the latter

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<sup>11</sup>Institutes of Oratory, ch. II, p. 18.

alternative of setting them to be learned by heart more frequently than in some other schools. Flogging, which is administered publicly (as a general rule) and by the head and second masters only, has greatly diminished in frequency. "When I was here," says Dr. Moberly, "in my boy time, there was a very large number of boys flogged, and nobody cared about it." "I have known 20 in a day, and all for slight offences. Sometimes boys did not answer to their names in time. Now we punish in this way very rarely. There are now from 10 to 20 floggings in a year, perhaps in some years a few more." (41a, p. 153.)

"It occasionally happens that a boy begs for a number of stripes instead of writing a composition. Caning and birching, however, have become less common; and in most public and grammar schools where they still exist, they are resorted to only in the case of serious moral offences;" some schools advertise, e. g., "discipline is maintained without corporal punishment or impositions." At Winchester we still see the inscription:

*"Aut discere, aut discedere; manet sors tertiacaeedi."*

"Above this inscription there is a mitre and crosier as a reward for the first; an inkstand and a sword for the second; and a birch rod as a symbol of the third." (41a.)

Corresponding with the decrease of flogging we have the competitive system strengthened. "The system of promotion at Winchester is nearly the reverse of that at Eton. At Eton a boy rises in the school chiefly by seniority; at Winchester his rate of progress is determined by his success in an incessant competition, in which every lesson and every exercise counts for a certain numerical value, and which never pauses or terminates till he reaches the Sixth Form. Places are taken in every division below the Sixth Form, and each boy receives for each lesson a number of marks answering to the place he holds in the division at the end of the lesson. Thus if he is twentieth from the bottom he receives twenty marks. . . . At the end of every week the marks gained for all the lessons are added up, and the same thing is done at the end of every month. The record of each boy's progress is called the "classicus paper." The promotion of each boy at the end of a half-year depends on the number of marks he has obtained in the "classicus paper" during that half-year, with the addition of those which he has gained (if his place in school is below the senior part of the Fifth) for "standing up" at the end of the summer half." (41a, p. 147.)

"There are prizes of books given by Lord Saye and Sele to the two boys in each class who obtain the greatest aggregate of marks in the half year." (41a, p. 149.)

In commenting upon the deadening influence of mechanical

instruction, Wiese says: "Imagine a highest form as I have witnessed it, in which Thucydides or Tacitus is read; the master has the author before him, together with a list of the pupils. His questions are put according to the order in which the pupils sit, and for every answer he adds a number to the name of the pupil who has answered; it is the number of marks which the answer merits! This process was repeated several times during the same hour, and after it the pupils crowded around the desk to learn the number of marks they had gained, and each one then entered the number in a book for himself. At the end of a week, the marks are summed up to be afterwards considered when the prizes are distributed." (47, p. 185.)

We should not pass without notice the "merit money." Merit marks are given. Monthly they are counted up, and when merit money is deserved it is awarded in proportion to the boy's place in class. (41a, p. 313.) (Highest merit is 6s.)

At Harrow, "the number of smaller prizes given, in the shape of medals or books, for performances in special subjects, is very considerable." (41a, p. 219.)

In general, the competition for the annual prizes is one of the most thorough and satisfactory parts of our school work. The excitement among the boys in the upper part of the school in connection with them is very intense, and it is felt to be an honor to any one in the house that a prize should be gained by a member of the house.

"We believe that we do no injustice to Eton in saying that it employs sparingly—more sparingly, perhaps, than any other great school,—the spur of emulation. In the system of promotion, the hearing of lessons, even the awarding of prizes, there is comparatively little of direct competition and the distinctions which are given are not conspicuous enough to make them objects of general ambition or respect. Instead of emulation, reliance seems to be placed on the sense of duty, the influence of association of parents and of tutors, and what may be called the mechanical movement of the school; there has been an aversion to positive pressure of any kind, a great reluctance to exclude on account of mere backwardness, whether caused by idleness or by incapacity; a strong and laudable anxiety to afford all the boys as much liberty as they could safely enjoy, and ample scope for healthily amusements." (41a, p. 9c.)

Though quite generally accepted as the chief means of stimulating to effort, the use of rivalry has been questioned in English pedagogy as elsewhere, but with the final result that competition of some sort remains as a stimulus. (41a, p. 89.) Mr. Birch, of Eton, complains of the difficulty of "creating" honorable emulation among the boys, and the committee find what rewards and distinction remain "for want of that pub-

licity which makes awards effective, and of that general competition which brings out all the highest talent at once into the field, do not appear to tell much upon the school." (41a, p. 90.) The committee finds the work of Eton not up to standard for lack of emulation.

The spirit of rivalry fostered in the public schools is quite as evident to-day in the more modern elementary institutions—The Board Schools. Philpott, member of the Sandon School Board for thirty years, describes the elaborate system of prizes and rewards, with approval: "Some of the children are entitled to wear almost as many decorations as a victorious general; eight, nine, even ten medals are the testimonials both to punctual habits and good health which some of them can show. There is one family which proudly displays fifty-two medals, each representing a year's perfect school attendance on the part of one of its members, and in a great many households, the books won by the children make a brave show in the sitting room, forming often the great bulk of the home library.

. . . . The award of a banner to the class making the best average attendance for the week has tended to enlist public opinion on the side of regular attendance, not only the natural and honorable ambition to do better than other classes is aroused by this means, but also the equally natural, if less exalted desire to secure certain small privileges which the teacher may have desired for the winning class." (41, p. 91.)

The use of rivalry is thus not essentially different from that of half a century earlier. But "the tendency is to increase rewards and diminish punishments." (41, 64.)

In 1873 periodical displays in physical exercise were organized. "The competition for these banners became very keen, and in 1896 it was decided that the competitive element should be excluded from the displays." (41b, p. 115.) The London School Board provides prizes and medals for regular attendance, conduct and industry. In 1902 there was distributed 70,848 prizes, 33,309 medals. 15.9% of average attendance received prizes and 10.4% received medals, which represents an increase of 50% over 1888. (41b, p. 151.) To foster games such as cricket and football, leagues have been formed and matches between the various schools in the leagues and between North and South England "are contested with the greatest keenness and are marked by sportsmanlike behavior, good temper and unselfishness on the part of the players, . . . not only are the teams interested in the matches, but this interest is shared, by the rank and file of the schools, and it causes among the youngsters an amount of emulation to qualify for selection which has a most beneficial effect upon them and constitutes one of the best aids to discipline. It possesses

many other advantages such as mixing the boys of other schools; giving them self-confidence and increasing their self-respect." (41b, p. 241.)

"Only slight corporal punishment may be inflicted, and this only when other means have been tried and failed." This rule enacted by the London County Council in 1904, is significant; at least, it shows that corporal punishment is not popular. On the other hand means for fostering rivalry are, if anything, more numerous in the Board Schools of to-day than in any of the other schools. The great publicity given the successful contestants in school affairs, together with the system of competitive examinations for civil service, makes the subject of rivalry a social one, and the interest in education is not very much unlike the interest in true sport.

Wiese, writing in 1877, describes how prizes and rewards have not only permeated the Educational Department, but the whole social system as well. A father asks of his son, "how many prizes have you won?" not "What have you learned?" A wealthy man boasts that his son has won a number of prizes, that he has won scholarships at school, and is now working for one at the University. A Scottish mother asks her child what place he has at school, *i. e.*, his relative rank in class. And thus like a modern sportsman the English student receives his laurels.

In other European countries the appeal to rivalry in school work is not as great. For some account of the rôle it does play, especially in France, one may consult the paper by Mlle. Berillon, *L'émulation scolaire, Revue de L'Hypnotisme*, Vol. 23, (3).

United States. Discipline in the early American schools was severe and often harsh, as may be seen from the following typical incidents. "I won't be struck for nothing," screamed the urchin, "then I'll strike you for something," replies Sawyer while the rattan whizzes about his ears (the boy had committed some indescretion). Active and passive tense of verbs is taught with the same instrument. "Well, mutton head, what does an active verb express?" After a little delay,—"I'll tell you what it expresses." He resumes, bringing the stick down upon the boy's haunches with decided emphasis: "It expresses *action* and necessarily supposes an *agent* (flourishing the cane which descends as before) and an object acted upon, as *castige te*, I chastise thee; do you understand now, hey?" (25, p. 47.) Many such instances might be supplied but the above is representative. E. E. Brown, writing of "boy life in the old schools," says: "emulation was freely employed, and the position of head of the class had strong attractions for some young scholars." However, severity was the rule and the following is more characteristic of discipline in early days: "Trouncing was performed by stripping the boy,

mounting him on another's back and whipping him with birch rods, before the whole school." (25, p. 79.)

From the foregoing accounts we see that the nature of discipline though harsh was not altogether without its humor, and though severe it was at times a half buffoonery sort. The young American was asserting his characteristic individuality that we find so well portrayed by Holmes a little later. Martin thinks this sort of discipline characteristic of the times. C. Thomas gives his experience which squares with the above accounts.<sup>1</sup> The "rules for the ordering of the town school at Dorchester, 1645," while they accord full power of discipline to the teacher yet manifest very decidedly a fear that punishment may be too severe if not excessive. Note, e. g., the 9th Order. "And because the rod of correction is an ordinance of God necessary sometimes to be dispensed upon children, but such as may easily be abused by overmuch severity and rigor on the one hand, or by overmuch indulgence and levity on the other, it is therefore ordered and agreed that the schoolmaster for the time being shall have free power to minister correction to all or any of his scholars without respect of persons according to the nature and order of the offense should require."

The academies show the same sort of discipline. "Dr. Waddel conducted an academy at Wilmington, D. C., during fifteen years, beginning with 1804. He was strict in discipline and did not spare the rod. He insisted on thorough work and steady attention to business and stimulated bright boys as well as the backward."

Along with the intellectual awakening in America, the subject of emulation comes up and receives much attention in educational circles. The discussions were precipitated by an address "On Substitutes for Emulation," delivered before the American Institute of Instruction in 1831, by John S. Parkhurst (1, Vol. II). Two opposing views were presented. On the one hand, "it was urged that rivalry was inconsistent with the law of loving others as ourselves—that it was not the spirit of the gospel, or of heaven. It was admitted that the love of approbation and the love of power were natural principles; and if approbation and power were sought with a view merely to good objects, they were allowable and useful. But that to seek to obtain these at the expense of others—to desire that others should be *second* in order that we may be first (as the spirit of rivalry necessarily implies), is inconsistent with the character and precepts of the Saviour."

"On the other hand it was argued: That there were ranks

<sup>1</sup>The Frontier School Master, p. 247.

in heaven—that rewards were there bestowed according to merit—that emulation was a natural propensity to be found even in animals—that it existed in all men—that he who should be without it would be a brute, or something lower in the scale of being—that there were indeed abuses of this principle, but that there was also a noble *emulation*. ”

The interest in emulation and rivalry at this particular time is probably due to various causes, the unravelling of which would be the work of the sociologist. It was due to the *Zeitgeist* no less perhaps than was the individualism of the renaissance. But there is much evidence that it was brought to a focus by direct influence of European thought. American educators visited Europe and returned enthused with the non-emulous spirit advocated by Rousseau and practiced by Pestalozzi and his followers.

Woodbridge, one of these Pestalozzian enthusiasts, opens his Journal<sup>1</sup> with an account of the auto-enthusing spirit of Hofwyl (I, VI, p. 401-4). “Positive rewards are excluded, no less than positive punishment. That they may excite to greater exertion is beyond all debate. But it is by appealing to *appetite*, or *avarice*, or *selfishness*, or *vanity*; and thus impairing the habits of self-government, of benevolence and of humanity, which it is our great business to strengthen. . . . There is *neither first nor last* at Hofwyl—neither rewards nor medals, nor prizes nor punishments, which have humiliation for their object. . . .

“Not less evident is it from the experience of Hofwyl, that premiums and distinctions, and other means employed to excite the principle of *emulation*, are equally unnecessary to secure industry and love of study. All these motives are banished from Hofwyl; and yet my own experience and observation, and the remarks of others who have long known the institution, satisfy me that in few institutions is there so much disposition to application or so much faithfulness in the pupils, in employing all their powers in the fulfilment of the task assigned them.”

Several articles follow on the use of emulation, most of which are in harmony with the above account. Only one, Joseph Emerson, stands out as a staunch advocate of rivalry. Aside from the discussions between the years 1830 and 1836 pedagogical literature reveals no further great interest in the subject until the present time. Col. Parker advocates self-emulation, and the Dewey movement contains much of this nature. Jackman takes a positive stand which is not unlike that of the movement in the early decades of the 19th century. He writes: “Regardless of outward forms and of protestations to the

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<sup>1</sup> *Annals of Educ.*, 1830.

contrary, the real end of the school has been and still is the individual for himself and not the group.”<sup>1</sup>

“Under the old ideals the children must exert themselves to excel each other. Under the new, members of a group must exert themselves to help each other.”<sup>2</sup> Thus the same problem remains and the discussions are not much unlike those a century ago, excepting that corporal punishment is tacitly assumed to be out of the question. Rivalry, though not much talked or written about, is nevertheless inherent in the school system, chiefly in examinations and promotions. Examinations are a vital problem to-day, as is evidenced by the great body of literature on that subject. Perhaps the competitive examinations are an adaptation to the more refined and higher evolution of the instinct of rivalry. At present its evils are legion, though it remains as the great stimulating factor in our school systems.

Further instances of the use of rivalry in America might be presented, but I reserve the concrete cases for the following section, and merely note here that the genesis is the same for America as for other countries with the exception that the new movement of co-operation involves an appeal to many motives and tends to give the instinct of rivalry wider and freer scope.

B. Rivalry as a Pedagogical Device. Having considered rivalry in its larger aspects as found in the educational systems of countries we have remaining the systems and devices of lesser extent. Among such the Jesuits' method of appealing to rivalry is easily the most systematic and effective. The following selections illustrate the essentials of this method.

“The class is divided into two sides, which go by the names of Romans and Carthaginians (or Greeks and Trojans), and each boy on one side has his rival opposed to him on the other. When any boy is put on in his lesson, his rival stands up with him and detects any mistake he may have made. If these mistakes are detected rightly on each occasion, there is a mark made for the conqueror. Then the rival is put on, so as to give his adversary the opportunity of doing the same for him. At the end the marks are counted up and whoever has the most is declared victor in that particular engagement. . . . About every month, the victories are counted up, and whichever side of the school has the majority gets a half holiday which the others have not. . . . Perhaps two or three times a term, the master will pick out a few of his best boys and bring them before the staff of the college, the superiors, in parties, and they will examine each other in their lessons, two and two, and a victory gained under these circumstances counts double.” This is part of the general system everywhere. It applies throughout the school, “except in the three higher classes, though they have their division and stand up

<sup>1</sup> Social Educ. Quar., Mar., 1907, p. 56.

<sup>2</sup> *Ibid.*, p. 67.

with each other, there is not the same detail in declaring victories, because they look upon it as a little *infra dig.*"<sup>1</sup>

"Anything skillfully invented, admirably explained, gracefully said, by any scholar, might be put up in a public place as a memento to the perpetual fame of that scholar throughout the learned world. In the middle of the schoolroom or in a corner a dunce bench was kept which was known by some opprobrious name such as the 'gate of hell,' etc.; whoever occupies this seat is to be branded with some mark of reproach and to wear an humiliating motto. He may be released from this position if by a perfect recitation or superior essay he surpasses one of his fellows."<sup>2</sup>

This scheme of utilizing the instinct of rivalry is sometimes alleged to be inherently vicious, but such could not have been the spirit of its institution. "*Unde philautiam et inanis gloriae cupiditatem a se modis omnibus extirpare n:tentur!*"<sup>3</sup> "Let them root out from themselves, in every possible way, self-love and the craving for vain glory." (24a p. 90.) Hughes continues: "What is appealed to, is the spirit of emulation, and that by a world of industries; which, disguising the aridity of the work to be gone through, spurs young students on to excellence in whatever they undertake, and rewards the development of natural energies with the natural luxury of confessedly doing well. In the dry course of virtue and learning, satisfaction of this kind is not excited in the young, without a sign, a token, a badge, a prize. Then they feel happy in having done well, however little they enjoyed their labor before." . . . . "And if not all are victorious, all at least have traversed the strengthening probation of struggle."<sup>4</sup>

"The humanists would languish in obscurity if they had not the philosophers and theologians to be witnesses, spectators, and applauding auditors of their literary achievements." . . . The philosophers and theologians, when composing the prefatory essays for

<sup>1</sup>Kingdon's Evidence before the Schools Inquiry Com., 1868, Vol. V, Answers 12,228 ff., Perfect of Stonyhurst.

<sup>2</sup>Barnard's Amer. Jour. of Educ., Vol. 5, p. 227, tr. from Von Rauemer's Hist. of Pedagogy.

<sup>3</sup>See Monumenta Germaniae Paedagogica, Vol. II. p. 161.

<sup>4</sup>"Robert of Sorbonne, the founder of the College of the Sorbonne, had put it down in one of his six essential rules for the scholar, that 'nothing is perfectly known unless masticated by the tooth of disputation'" (249, p. 208). The excesses to which emulation may lead is guarded against by the founders of the *Ratio*<sup>4</sup> but great stress is laid upon its virtues. "In short," writes Hughes: "It is well established by the authority of the gravest men, and by the test of experience, that one disputation does more good than many lectures; not to mention the other consideration, that there is nothing more calculated to render our schools illustrious than making our students competent to win great approbation and applause, in public sessions and disputations." (24a p. 210.)

<sup>4</sup>Ibid., p. 210.

their disputationes, call for the taste of the humanists, by whose verses and orations, moreover, they are refreshed from time to time."<sup>1</sup>

The Fathers made provision for keeping up interest in disputation and for keeping it within sensible limits. "When the dispute has been sufficiently exhaustive, let him (the instructor) briefly define and explain it"<sup>2</sup> The extent of its use is also indicated as not to be above two hours a week.<sup>3</sup> Hughes, drawing from the "*Monumenta Germaniae Paedagogica*," writes of the conferring of degrees on the student: "He has now passed through long series of yearly examinations, which were almost always disputationes, and that, not with equals, but with four or five professors."

If the Jesuits have pushed rivalry to the extreme, they have practically eliminated corporal punishment from the functions of the teacher. And this in a time when flogging was the rule. The Jesuits believe in rivalry as a stimulus to industry, but they do not believe it is the only one which will arouse the boy to action. Schwickerath writes: "What is appealed to, is the spirit of good and noble emulation,—*honesta emulatio*, as the Ratio says."

The one thing in the Jesuit system of emulation which distinguishes it from all others, is the various grades of rewards, and the fact that two or more competitors receiving the same credits likewise receive each a prize. The class contests so much written about, are confined to the formal side of learning, such as conjugations in Latin and Greek, and are never the regular thing. In short, they have been used to stimulate interest in a dry subject. At present in this country the contests are confined to the secondary schools, though prizes are offered in college. A number of educators of the Jesuit Order have expressed to me the opinion that their method of appeal to competition would not work as well in America as in Europe, owing perhaps to difference of temperament. A more intimate acquaintance with the history of the Jesuits and their present institutions, the writer believes, should do much toward justifying the appeal to rivalry. "Men find pleasure in the cap and gown, in titles and degrees, and in stripes and badges of great societies, even while they smile at the 'stars', 'honor rolls' and 'rewards' of the school boy; they have uniforms, coats of arms, chaplets and medals of honor, but regard the 'brave' with his war paint and his girdle of scalps as grotesque. All these emblems help one to see himself as others see him and are marks of attainment or efficiency."<sup>4</sup> Perhaps

<sup>1</sup>Ibid., p. 147.

<sup>2</sup>Ibid., Vol. V, p. 292.

<sup>3</sup>Loyola, p. 213.

<sup>4</sup>Small: *Psychical Relations of Society and Solitude*, *Ped. Sem.*, Vol. VII, Apr., 1900, p. 33.

the old system of prizes and badges is nearer the natural impulses of mankind.

There is some suggestion of the Jesuit principle of rivalry having spread in pedagogical practice and theory. Comenius used and advocated practically the same principle of emulation as did the Jesuits.<sup>1</sup>

Quick favored it in a modified form, and there are devices in use to-day which might easily have been suggested by the Jesuit principle of emulation; a few of these are as follows:

**CLASS MATCH IN PENMANSHIP.** Two or three classes meet, draw a number, put number on paper instead of their own name. If there are 70 in the three classes then there will be 70 numbers and MSS. Papers are collected, divided into three equal heaps and marked by three different teachers, and finally the average of each class is taken. The class getting the highest average wins.

**ARITHMETIC MATCH** in same school: Principal sends note to each class to select 50% (or 75%) of the class to contest for honors at say 3.30 P. M. Each class proceeds to elect its best mental arithmetic talent, electing with great rapidity by nomination. Each class numbers its own members from 1 to 25 as may be. Each class appears in the assembly hall seated by itself. The principal calls five numbers. These then sit upon the platform. Problems are read one at a time. When he thinks sufficient time has been given he signals for answers to be written. When five problems are given they change papers, answers are read and marked, then returned to owners and read again to provide against error; each five averages its per cent. and a record is made. These are seated and five others called and the process repeated. The average of the averages is taken and the honor won.

2. The marks of every boy are given out for each week. A supper is given at the end of a quarter if marks come up to a certain standard. He puts up each week a list of "Furtherers," *i.e.*, of the boys who have surpassed the average, and of "Hinderers," *i.e.*, of boys who have fallen below it. Quick adds: No doubt this is an effective spur, but I should fear it would, in practice, deliver the hindermost to Satan. The boy whom by nature is made a "hinderer" is likely to have by no means a good time in that house.

In New Orleans, a Mr. Chambers gives an account of how he organized 16 boys into teams of four, making up scratch pairs, *i.e.*, bright and dull boy. The match between the teams was to see which could get the best record for the month. We are told that the sharper boys managed with more success than the masters to let light into the dull intellects of boys in the same team with themselves. This union of the "strong" with the "weak," as the French call them, is a good feature in combats of sides.<sup>2</sup>

By no means should all such schemes be credited to the Society of Jesuits. Rivalry had been consciously recognized as a universal human trait long before Loyola. An illustration is the educational scheme set forth in the Talmud.

Corporal punishment was discouraged, and genuine affection existed between pupil and teacher, so much so that a pupil often followed his teacher when the latter left one place for

<sup>1</sup> Great Didactic, tr. by M. W. Keatinge, 1896.

<sup>2</sup> New York, Sch. Jour., Dec. 8, 1888, Quick, Educ., Ref., p. 530.

another. And yet the Talmud places its sanction on the use of emulation. Two or more should study together in order to acquire a certain acuteness and sagacity, irrespective of their relative degree of capacity." "Iron sharpens iron, so one pupil stimulates another." "One of the most important ways of learning is disputations." (43, p. 47.)

*Self-rivalry.* There is a counter-movement, opposing rivalry, which lays stress on mutual aid and co-operation. The editor of the *Annals of Education*, in 1820, solicited contributions treating of the use of emulation in schools. He received several replies, most of which dwelt on the evils of rivalry showing the disasters following its use, and the great advantages of leaving it entirely out of school discipline. D. R. Hall, an active teacher and somewhat of an educational reformer, writes of his experience of 15 years. He used all the common means to stimulate pupils, giving "tickets and rewards to the successful competitors, with the usual result: jealousy of the successful one and laziness on the part of the hindermost. When he substituted 'interest' for rivalry the results were reversed: "better lessons, regular attendance, much more affection and kindness among pupils." (I, v. 2, 205-209.) Many others reported, who verify the above in every particular. The Ipswich Female Seminary reported a complete abolition of competitive methods. Even examinations were individual and private so as to avoid all rivalry." (I, v. 3, 75-80.) The University of Nashville reported excellent results after a trial without competition for several years. (I, v. 3, p. 107.)

Perhaps no one has had greater success in the use of self-emulations than Le Père Girard. He not only redeemed the schools of his town from degradation, but wrought so great a change in the disposition of the people as to render police unnecessary. From an account of his work I cite the following paragraph.<sup>1</sup>

Natural emulation is that which results from the simple union of children. It is one of the privileges of public education. Artificial emulation is the result of the establishment of favors which they obtain by being the first among their comrades, who become their rivals. It is this that Père Girard declares as absolutely contrary to a good education. The school of Friburg distributed prizes in the annual reunion. That reunion became a veritable solemnity because the people came there in crowds, and because the prefect of the school seized this opportunity to address them in a discourse full of life and interest. But the prizes were accorded to all pupils who had

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<sup>1</sup>Monographies pédagogiques, F. Payot. Lausanne, Fr. (1896). p. 73-99.

complied with certain determined conditions. No one was able to envy his comrade who had borne from him the prize. In theory all might have it, the condition imposed in order to receive a witness of satisfaction was not *to be the first* but *to have done well*; these two formulæ, by their diversity, show the difference between the intention to do well, which is the source of all progress, and the desire to be the first, which is the product of artificial emulation. The desire is more active in the life of children than in adults. An education well directed ought not to excite it in making use of it, but to combat it in the interest of the good of the individual and of society.

M. Marty (33, p. 71 ff.), director of literary studies in l'École Alsacienne, writes of the change in that school from rivalry to one of self-rivalry. The founders of the school decided that emulation led only to vanity, that to measure one's self with others may be wholesome for some, but for others it serves only to puff up their vanity or to discourage. It is much more efficacious to compare one's self with one's self. Particularly is this true with children who develop very late. A pupil may be marked and measured by a pupil more mature or less bright. The true and secund emulation is that which leads the child not only to compare himself with a rival, but also with himself. The school of Alsacienne has established a principle which gives to the pupil not only a place, but a mark denoting the value of his competition. One might be first with a mediocre mark, but his work would not be great. One might be last and always last, but if he began with zero and rose to the mediocre, it shows that he is in the line of progress. And in the place of being jaded and eternally vanquished he is encouraged.

In the second place the system offers the same opportunity for noble rivalry that is needed to give to society that élite it needs. And this is done again not only through written tasks, but with due emphasis on the moral. More prizes, not fewer, are given.

The Minister of Education in 1881 saw fit to speak of this school as follows: "I admire most your system of rewards. In France, where public education seems to take delight in developing our natural faults, you are the first to have the courage to suppress that *appareil vaniteux et sonore*. . . . You do not establish that hierarchy too often *illusoire*, sometimes unjust, always puerile. And when the day of public judgment arrives you say with a simplicity that has its grandeur, 'these have done very well, these well, these have also done their duty well.'

England, the one country which approaches China in its competitive examination system, is not without advocates of

self-emulation. Quick doubted much of the supposed advantage of rivalry. "When the number is small," he says, "the master can get emulation enough. When I had only one pupil I managed to make him compete with himself, and he was immensely delighted to find how his pace improved."<sup>1</sup> Miles is a strong advocate of this same method. He would make all struggle for higher development a contest to be won; *e. g.*, anger may be regarded as an opponent to be overcome in a play spirit. "I have managed," he says, "to appeal to three otherwise thoroughly dishonest business men by urging them to play the game and be sportsmanlike; one was an American, one a German, one an English Jew. Every other appeal had failed; this appeal succeeded at once" (34, p. 451). "All competition should really be against the past and present self" (34, p. 350).

Some experimental evidence can be cited against the extreme use of rivalry in schools. The only laboratory study of competition now published shows both good and bad results. The task in this experiment by Dr. Triplett was to turn a reel until certain signs appeared, in the shortest possible time. 40 children between the ages of 9 and 14 entered the competitions; 20 were stimulated positively, 10 negatively, and 10 were little affected. Over stimulus caused the time to be much slower than when turning alone. "Most frequently this is true of the first trial in competition, but with some it was characteristic of every race. In all, 14 of the 25 races run by the group were equal or slower than the preceding trial alone. This seems to be brought about in large measure by the mental attitude of the subject. An intense desire to win, for instance, often resulting in over-stimulation. . . . A number of young children of from 5-9 years, not included in our group of 40, exhibited the phenomena most strikingly, the rigidity of the arm preventing free movement and in some cases resulting in an almost total inhibition of movement" (46, p. 525).

#### IV. CONCLUSIONS

The study of animal rivalry seems to force upon us the conclusion that it is a development from the instinct for activity, and also that hunger and the instinct for food are at its very roots. Even solitary animals such as the cat come into the world already armed with instinctive reactions, calculated to worst their companions in the struggle for food. Sex rivalry is connected with nutrition, but has characteristics peculiar to itself, chief of which is its disappearance almost immediately with the sex appetite. Rivalry for leadership is more complex, undoubtedly an outgrowth of the struggle for food and for sex,

<sup>1</sup> Life and Remains, p. 240.

but nevertheless quite independent from either. It is an evolution more directly perhaps from the impulse to pugnacity and is the highest development of this in animal life. The wolf, though it be social, is nevertheless below the dog in social evolution. The former meets his fellow opponent on the field of battle and fights to the death ; the latter, like a modern pugilist, fights until mastery is assured, at which point friendship begins. This together with the natural aid in hunting prey is not without its ethical significance. And yet animal rivalry in its different aspects seems to be a definitely organized response to a situation, not a general reaction. A dog may try to beat another when the dinner bell rings, but in an artificially enforced race the hindmost is as happy as the first.

Human rivalry shows a sequence parallel with the growth and development of the individual. Struggle for food is the initial stage. In early childhood it expresses itself in showing off and opposition, which also testifies to its social character. Pre-adolescence is less self-conscious than earlier and later stages, attention and interest centre more in the external world. It is typified by the child who is always found pushing his way to the front of the crowd. With the period of adolescence comes the growth of intensity, but from the subjective side. Self-examination, incipient at this age, reveals new standards both individual and social ; also the auto-erulous impulse is revivified. It is in this period of conflicting impulses that we find those elements arising which make rivalry in its final and highest stage a struggle for superiority, well typified in the American Indian. The Indian has not the ideals of the white man, but the impulse is independent of stages of civilization. The tennis player, who made a 'fluke' because his opponent had done so, in order that he should not win the game on an error, is an illustration of this same finer impulse of superiority.

A study of philology and life conditions supports the theory that rivalry is a social instinct. The number of plays chosen by children increases gradually from the age of six to eighteen, and at the same time there is found an increase in competitive and co-operative elements. Mutual aid is a real and effective element in animal and human life. It is especially so when the natural environment is oppressive. When co-operation is unnecessary to existence, individuality asserts itself. Evidence, however, points to rivalry as a general development of the 'will to be,' from mere instinct for activity through an ever upward push to a 'will to be superior.' Though the superiority desired or aimed at may always be a relative one, there should always be borne in mind the psychological difference between mere 'supremacy' and 'superiority.'

An historical survey of the methods of education seems to reveal a definite sequence in the order of stimulants used to incite industry in learning. The oldest means of persuasion is the rod, as we have seen in Egypt and China. The next higher step is taken when rivalry is in part or in whole substituted for brute force, as is illustrated in old Athenian education, but chiefly by the order of the Jesuits. The final stage is the present, in which many motives are appealed to and rivalry is less a conscious factor but, nevertheless, inherent in the system.

The child prior to six years craves approbation. Badges and visible rewards justly appeal to his interests. The kinds and extent of such stimulation should be determined from the nature of the situation. Undue excitement and perhaps party feeling should be guarded against. But pre-adolescents may well be given more violent stimuli. The organism seems to demand strenuous exercise, and the whole nature is individualistic. Real competition without too prolonged struggle or suspense accords with the nature of the pre-adolescent.

With adolescence the programme changes. The psychic reactions are more complex and new impulses arise. The impulse for superiority and the hunger for greatness may well be taken advantage of by providing material dealing with truly great events and achievements of worthy individuals. Besides opportunity should be given to test abilities in many lines that the youth may the more surely attain success in some one or more.

The Port Royal experiment lends support to a discipline of more competitive nature. Perhaps rivalry is a strong social factor. It need not be antagonistic. The boy desires to get into the crowd, not alone because he is gregarious, but because he is thereby furnished a standard with which to measure his whole self. It is the belief of the writer that the so-called baser emotions, such as anger and hatred, are accessories and means of guidance rather than fundamental motives to action. Artificial rivalry, or rivalry that does not involve the whole interest of the participants, does not pertain to the present pedagogical consideration. Galton writes concerning the lack of moral courage: "The vast majority of persons of our race have a natural tendency to shrink from the responsibility of standing and acting alone; they exalt the *vox populi* even when they know it to be the utterance of a mob of nobodies, into the *vox Dei*, and they are willing slaves to tradition, authority and custom. "Slavish instincts of man are a direct consequence of his gregarious nature, which in turn is a result of his previous form of civilization. Gregarious animals possess a want of self-reliance in a remarkable degree. We have inherited these

slavish instincts to a remarkable degree, which under our civilization are becoming of more harm than good."

Rivalry reacts against undue gregariousness and is a means of moral and ethical adjustment. It involves all the attributes of courage. It furnishes an outlet for the impulse to physical and mental activity and brings individuals together on the same plane. It fosters that honesty characteristic of the English, who face their rivals healthily and squarely with the hearty admission, "I shall beat you if I can," and discourages that secretive "thrust from behind" attitude characteristic of American "graft" and underhand political play. It tends to inspire self-confidence and to rectify the cowardice underlying gregariousness. Without destroying socialibility it tends to place the individual on his own feet.

It appears, then, that rivalry is an elemental impulse of life which cannot be neglected in education. Instead of being looked upon as a means to discipline it should be considered in the light of development and given a chance to expand into its fullest and ripest stage,—the desire for superiority.

Rewards and prizes should be adapted to the period of development. The child cares not for per cents, but loves a badge, and a bit of vanity indulged in early can do no harm, but, on the other hand, will drain off excessive self-pride and make room for greater things. The reward should be adapted to the occasion. Privilege to sit in an honored place is more healthful at all ages than a close contest for marks. The element of self-emulation comes in for a larger share as age advances, and may well be substituted for much of the more strenuous competitions.

The legitimate scope of rivalry is relative also to the occupation and subject of instruction. The special place for rivalry is the field of action. Elsewhere it should always be looked upon with suspicion. Mrs. Boole has made this distinction emphatic in the following passage:

"The element of competition has its place, and a very important one, in education; but its function is to stimulate to active exertion among known facts. Children may legitimately run races for a prize, or compete together as to speed and accuracy in working out sums by methods already quite familiar; but whenever the business on hand is revelation, whether by learning to understand a mental process, observing a natural fact, or tuning the nervous system into harmony with Nature's rhythmic law, the idea and feeling of competition should be entirely absent. Too much stress cannot be laid on this point. The false crossing of influences, the applying of stimulus inappropriate to the particular 'function, especially this dragging of the element of competition into the wrong

positions both of the educational life and the professional life, are responsible for more of insanity and vice than any one dreams of who has not given very special attention to the subject." (Preparation of the Child for Science, p. 65.)

The danger to health from the over-stimulation of rivalry has often been noted. It is made emphatic by such cases as the following reported by Dr. Adolf Meyer, a case of insanity which he attributes to over-stimulus. The child was modest, shy, retiring, relied on others. Her sister was aggressive and looked out for herself. At school she studied too hard. "By fifteen she was gravely deteriorated." Dr. Meyer concludes: "Plainly the victim of forced competition with a sister of wholly different endowment." (Psychol. Clinic, June 1908, p. 100.)

The concrete details as regards the proper use of rivalry must be made the subject of extended investigation. No doubt, as has been suggested, a book might be written on the use of rivalry in schools. But at present data are not at hand for satisfactory conclusions or even suggestions. The essential thing now needed for further solution of the problem is a series of experiments by trained psychologists carried on for a number of years, and under controlled conditions. Such experiments should do much toward settling the controverted problem of rivalry *versus* co-operation in the school, and also help to solve the antinomy-individualism *versus* collectivism in social evolution.<sup>1</sup>

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<sup>1</sup>Although this study is preliminary in character, I take this opportunity to make acknowledgments. I owe very much to President G. Stanley Hall for encouragement and valuable criticism, and I desire to express my grateful indebtedness to Dr. William H. Burnham for suggesting the problem, for kindly interest and helpful directions.

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## DRAMATIC INSTINCT—ITS USE AND MISUSE

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By ALICE MINNIE HERTS

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Those of us who can review a two-score span of life will recall the endless hours when the four bare walls of the schoolroom claimed our bodies, while our souls wandered far afield on adventurous journeys on which it never occurred to us to invite our teachers. They were only make-believe trips after all, and what teacher knows anything about make-believe? Teachers know only about temperate zones and dates of battles and sums in addition and multiplication. Yet on these journeys we were often puzzled and bewildered in the many highways and byways through which we travelled, and at times we might have progressed more surely and expeditiously to the goal of knowledge towards which all such roads lead had some big brother or sister gone ahead with an axe and cut down some of the biggest trees that obstructed our pathway and helped us to pierce the shadows and dancing gleams that make such roads at once a delight and fear. Now and then we could not go along half so quickly as we wanted for fear of slipping off the edges of the big round globe of make-believe which Atlas carries on his back, just like the picture on the cover of our geography books; slipping off into the everyday world again. We were often confused and puzzled because dear dancing roads so often ended "no where" instead of in the gardens their beginnings promised. Once in a while we caught an elusive, passing gleam in the eye of teacher which made us believe that she could help us if we would invite her to come along; but before we ventured, whiff! we were in a different class where teacher's eye gleamed quite a different gleam or never gleamed at all. Little knew she of our truancies from schoolroom in Far Fancy Land. Had we told her of slipping off the Atlas globe she would have forbidden "silly stories."

And now for the child of to-day all this is to be changed. A deep and threatening frown of disapproval of the methods of the immortal Gradgrind is wrinkling the forehead of the advanced educator who righteously disclaims all kinship with past generations of the McChoakumchilds and their out-of-date, injurious tactics. A great and constantly increasing desire exists on the part of those in charge of the education of

the young to give freer exercise to the producing powers of child consciousness through an appeal to the imaginative life. Not alone in select private schools where there is time and means for individual instruction, but in the large, over-crowded classes of the public schools, teachers are encouraged to realize that something more than "facts and facts alone are wanted in life" if the child is to be developed into a useful and happy citizen who shall in good season reap ample harvest for his country's economic advance.

A significant response of the encouraged teacher to the demands of the frowning advanced educator is a plan lately introduced into many public schools of dramatizing or "acting out" the history, geography or reading lesson that the child's co-operation may be attached by something more interesting than a mere recital of dry facts or printed words.

The writer lately visited several public schools both in New York and Brooklyn to study the methods employed in operating this intrinsically excellent plan. She found the children "acting out" the lesson in hand. Braddock's Defeat, the Boston Tea Party, the signing of the Declaration of Independence, and kindred historical incidents shaped into little plays were done by class children with the greatest zest. In one case, class choice of a historical incident for play focussed on the discovery of America by Columbus. One group of girls was chosen by the teacher to portray the Spaniards at court, including King Ferdinand and Queen Isabella. Another group essayed the characters of Columbus and his followers. Historic details of the episode developed in the doing of it; the dialogue, in the children's own words, included mention of the globular theory of the form of the earth, and Columbus's exposition of his belief that by sailing westward he could reach a new continent. The child impersonating Queen Isabella expressed her faith in the navigator and her determination to help the expedition. Then followed suggestion in dialogue and action of the preparation and setting out of the little fleet of three vessels; the attempted mutiny during the persistence of the voyage beyond sight of land; the inducing of the admiral to change the course of the fleet; finally the child impersonating Columbus sighting a light in the distance, and then followed the landing of the imaginary boat. The children acting the exuberant joy of the sailors and the satisfaction of their leader were scarcely more delighted and interested than were those of the class who witnessed the episodes.

For the signing of the Declaration of Independence, a very well dramatized version of the episode had been made in five scenes by the teacher, and simple properties such as flags, rolls

of parchment and newspapers were used by the young players to give more graphic semblance to the effect.

Scene first showed the colonists before Faneuil Hall. Scene second portrayed the calling of the convention. Scene third was placed at the second day of the convention. During this scene an adjournment was taken, when the delegates, represented by various children in the class, discussed amongst themselves the reasons for signing and not signing, and a decision was finally taken to return home. During scene four all the children in the class represented the colonists at their homes reading in the newspapers of what had been done at the congress. Scene five portrayed another meeting of the congress and a submission of the document "The Declaration of Independence;" finally a signing of the declaration by various colonists, the little drama ending with a pledge of allegiance to the American flag.

In all the schoolrooms observed the principle had been grasped by those in authority that the fact acted out is the fact remembered, and that in "acting" the lessons the children unconsciously lent their fullest co-operation with the work of "learning" in hand.

The psychological principle foundational in all such work is potent and apparent and operates much more widely than for the mere attaching of the interest and memory to fact. The operation of the principle involved is controlled by laws at once so fixed and flexible, so limited and so far reaching and so important and vitalizing as applied to school work that the writer is led to deplore the ignorance and meagre intelligence displayed by many teachers now venturing to dramatize lessons.

In every case without exception the children chosen to portray the important characters in the little plays were the ones who displayed the greatest aptitude in acting out the parts, those who were the quickest to give semblance to the character,—in short, the ones whose reproductive imaginations could most quickly bring past periods near, and dead heroes back to life through physical portrayal. The quick, insistent, expressive child who could attain dramatic effect secured to himself the part of Columbus or of Jefferson; the slow, dull, inhibitive boy or girl was either one of the sailors with almost nothing to do, or was not in the little drama at all, except in the capacity of audience. This method naturally produced an effective rendition of the incident for the audience, and proved to be merely the same use of dramatic talent as is resorted to in all schools and colleges in connection with dramatics;—precisely like the Smith College graduate, who displays the greatest aptitude for superficial expression of the part of Hamlet secures for herself the star part; so the child who can best and most

quickly characterize the superficial attributes of Columbus, is permitted to impersonate the explorer for the admiration and approval of all her little friends and classmates.

Concerning college theatricals, we may deplore an opportunity lost to more fully co-ordinate dramatic and educational interests, but when in the schoolroom there is misuse of a vital, educational force to the injury of the child, such violation of the laws relating dramatic instinct to education becomes a matter of urgent protest. A scientific knowledge of those laws are an essential equipment of teachers and others in authority. When the child Columbus in the sixth grade grammar school, like the girl Hamlet in the college play, is permitted to play her part over and over, the ignorance of the teacher works further injury to all concerned. Reiteration may improve by practice the child's performance, but training of dramatic talent is no suitable part of public school work, and the value attaching to that widening of personality which results from the inclusion of another self in enacting a character, is lessened by repetition even when the knowledge and efficiency of the teacher has developed a true contact between the child and the assumed character.

Dramatic instinct is too often confused with dramatic talent, and ignorance of the laws relating both to education and life is almost universal. Dramatic instinct is a significant factor in the life of every individual, connecting and welding the individual with communal life, and the human with the universal. Dramatic talent on the one hand is a special, uncommon gift bestowed upon the limited few. The educator is not concerned to develop dramatic talent in its relation to life and character, because its use is merely to specialize the actor for his business and art of acting. It is a particularized faculty drawn out and stimulated that its output may be effective for an audience and of commercial and artistic value. The teacher of dramatic art is not expected to relate the operation of dramatic instinct to character development of the actor. It is his business merely to push the specialized, imaginative faculty to the most speedy securing of certain desired artistic and commercial effects for the interest of an audience. Dramatic instinct on the other hand is the common, ordinary, free heritage of every child, unconsciously operative in every human being from the cradle to the grave. It is among the great basic forces whereby God shapes humanity; through it is caught indeed a reflection of God in man. It nourishes the root of every other impulse. It is the force which makes the soldier on the battle field grasp his country's flag, and raising it high above his head, cry out, "On to victory," even though that victory includes the death of his own body. It sustains the monk in his

vigils, the statesman in his patriotism, the preacher in his pulpit. Through proper cultivation it may be made a force in education so far reaching, that under its organized impulse the entire character may be developed, mind quickened, sympathies broadened, ambitions ennobled, and bodies lifted and re-made. Reverently, intelligently, lovingly stimulated, dramatic impulse will not alone serve to vitalize facts in the schoolroom; it will also secure responsiveness to the environment which includes the vitalized fact,—the result essential to all true education. The educator is in no way concerned with the result effected in the life of the actor through the stimulation of dramatic talent; he is in every way concerned with the results obtained in the development of the human being through the stimulation of dramatic instinct, and it behooves us all to watch out and guard against the stimulation of this heaven-born impulse by those who have as yet come into no understanding of its powers for woe as well as for weal. In justice to the children it is the educator's business to realize the extent of vital harm which may be effected by teachers through desultory, ignorant incitement of the impulse, as well as the good which is effected by placing the child in conscious communication with its own God-given instinct, to the end of bringing about that which nature has designed should thereby be accomplished.

Five years' experience in developing the Educational Theatre for Children and Young People, still in its swaddling clothes, fills the writer with apprehension at viewing in the schoolroom the stimulation of the child's dramatic instinct by teachers ignorant of the fundamental relations of dramatic instinct to character growth and the principles of its development in this relation.

The object of all dramatized lessons is to create in the unexpressive child through the cultivation of its imagination in relation to the assumed part, a something which did not previously exist for that child. This is the true function of dramatic instinct. Instead of accomplishing this, the unequipped teacher is appealing to the dramatic talent of the naturally expressive child to elaborate a something which already existed. This use of dramatic talent for decorative, finished effects is just as mechanical as the Gradgrind tuition of facts. The ordinary young teacher, with her smattering of Froebel and Pestalozzi, her superficial catchword knowledge of Kant and Bain, and her sole experience of one year's training in a school of methods,—the usual young teacher of the three R's,—must not be permitted carelessly to enter the sanctum sanctorum of the child's imaginative life through the door of dramatic instinct. Far better leave that door closed and guarded

even by a battalion of ultra conservative Gradgrinds, than open it to a regiment of radical insurgents who have not as yet learned to face about and march, far less to carry arms.

Wise, kind, far-sighted Froebel, gifted with the vision of the true educator, realized at once his primary obligation to prepare and develop teachers, who should possess not alone a psychological, but a practical working knowledge of kindergarten principles and methods. Let us be grateful for the conservatism which for so many years kept the kindergarten separate and apart from our public school system, for these were the vital years of sowing, of fertilizing what was so often arid soil. The years of patient ploughing and furrowing that the harvest might be staple and yielding of plenty. In the same careful, intelligent fashion must teachers be prepared before they may be allowed to engage the child's senses as the organs of his mind. They must understand that truth is developed, not taught, and they themselves must learn to bring the child into relation with the essential qualities of things that the child's gift of imagination may leap to a conception of the whole truth before the child can be allowed to stamp a half truth into permanence with action.

Teachers who have had little or no experience in the application of dramatic instinct to characterization and dramatization to character development affirm that in these dramatized lessons the teacher must place no restraint upon the child's normal activity in acting the character according to his own imaginative fancy. That the children should have a good time is considered essential. These are the same teachers who will select for the portrayal of character the child whose natural tendencies, unguided, stimulate it to action, and in both instances they are entirely in error, flagrantly violating a fundamental principle. Here is, perhaps, the most important point at issue, since here we touch upon the development of a sense of truth as essential in inducing the correct conception of the character before conception takes form in action. The dullest and most deficient child, not only may be, but should be carefully and intelligently guided and developed to bring out a new power of consciousness by working out the values of a character; and if he is so encouraged to bring himself by many points of contact into sympathetic knowledge of the character, and after such conception is permitted to enact his evolved creation, he has by so much broadened his soul life and brought himself into conscious kinship with humanity and he will moreover be able forever after to hang a true picture of the character enacted in his mental gallery. This method of dramatizing provides that the child shall realize only a keen interest in what he is doing,—a sense of "having a good time," but always the

teacher must remember that schools are founded and taxes paid for the dissemination of knowledge, and not for the training of dramatic or other special talent, or for the exhibition of personality. The enlightened teacher values the fact as a symbol of truth and as symbols she must deal with facts. She must understand that dramatic instinct is present in and can animate the dullest, slowest child in her care, and she must know how this instinct may be nurtured to that child's quickening. Only in such understanding and knowledge may she be permitted to enter into the child's imaginative life, comrade on his journeys of make-believe; guiding, not coercing; stimulating, not exciting; establishing relations, not specializing personality; in a fashion so wise, so tactful, so loving, yet so scientifically exact that the child is released from all sense of control or restriction.

Methods governing such work have been developed during five years' experience in the Educational Theatre. A work of this kind the writer had the keenest pleasure in seeing in one public school whose principal had come under the influence of Educational Theatre training, and she made certain that the director would have been doing this same good work if cast loose on a barren island without any school curriculum connection.

Dramatic instinct is the educator's concern not only in its relation to the schoolroom and the child, but to life and the period of developing youth. Daily experience in the Educational Theatre develops the fact that the majority of young people as well as children experience a hunger of the soul to live out impulses denied expression in their personal lives.

Individuality is of the soul, and eternal Personality restricts and shapes us into the limits of our environment.

Youth chafes against such limit. The impulses of humanity stir beyond the reach of mere personality, time and circumstance. Johnnie wants to be a pirate, Miss Smith a queen, young Harry a martyr. This is nature's provision against spiritual isolation. This hunger of the soul for experience is as elemental a demand for nourishment as the hunger of the body for food. In dealing with dramatic instinct the educator deals with an expression of this elemental hunger. Unguided, it drives the developing human being into many strange deeds and desires. Not co-ordinated with his life and surroundings it is often dangerous, disintegrating and misunderstood. Guided and directed it is nature's provision for supplying to the soul the experience it craves, but in it the educator is confronted by an elemental impulse of great power and of basic relation to the whole being, and he must be instructed in its guidance.

The quality of the dramatic output of action should be of no concern to the educator. The quality and influence of the impulse leading to action should be his chief concern. Dramatic instinct is to be made a gateway for soul and mind into a larger experience, not a gateway for personality into exhibition. By its use the weakened points of personality should be reinforced, those already robust not exhibited. For this reason the dramatized school lesson must never develop into a finished performance. If it is allowed to become so there will in a few years ensue a righteous revulsion against dramatized school work and all the good which the scientific, intelligent use of the fundamental principle might have effected will be worse than lost, for its ignorant application will just as surely tend to the over-development of emotion, as will its intelligent stimulation nourish and clarify feeling under the direct control of the will. This is constantly exhibited in the classes of the Educational Theatre, where all the so-called bad little girls not at all suited for show work in the schools are led to believe that above all they want to play the nice, good characters in the fairy tales:—dear little Snow-White, kind Red Riding Hood, the lovely sleeping beauty, and the gentle little lady from whose mouth the fairy made fall only pearls and precious stones. The so-called good girls are developed towards a sympathy and understanding of character that interests them to essay the wicked queen who tried so hard to kill poor Snow-White; the horrid wolf or the ungentle maid from whose mouth dropped only toads and lizards. The toughest boys have a right to study and try the part of gentle Cedric Errol in Little Lord Fauntleroy, while the timorous and bashful ones are urged to portray the valiant, heroic virtues of any of the seven little dwarfs in Snow-White; or the pupil is encouraged to select for study a character with which his own makes prompt and easy contact, not that he may the more effectively do the acting of the part, but that he may thus come into a power of analysis, a judgment of his own qualities and experience in the safe restrictions of the assumed character, the dangers and results of violence or weakness that are part of his own personality.

Educational Theatre methods of applying dramatic instinct to character development have come about through the experience and observation of five years. They constantly show that the child whose craving dramatic instinct is capable of crime is the one whose same instinct may be equally capable of heroism, and in nine cases out of ten all the child desires is the opportunity to "act out" an impulse. Give the boy of fifteen his chance to play a thief or a murderer on a real stage, in the costume and environment of the part, he will experience

all he wants of stealing and killing. It may be highly dramatic to be one of the street gang, and it sets you up in the eyes of the other fellows, but it is just as picturesque if you can do it on the stage, and besides you have a better audience. Here is where the Educational Theatre gets hold of the child that no formal method of education has been able to reach because no formal method is so powerful and so sure because so attractive, so stimulating, so interesting to the child himself. What good to preach of the beauty of truth and valor and courage, to barefoot, out-at-elbow Tommy O'Sullivan, whose drunken father shied a dinner plate at his head last night. Tommy might stray into a church or Sunday school to get out of the cold, but Tommy really wants to be Prince Edward when he comes to the Educational Theatre. He has paid his dime to come into the theatre dozens of times during the past five years and he has seen Jakie Kaminsky play the part. He wants the chance to get into those beautiful white satin clothes with the golden belt and the dangling sword and the feather in the cap. He knows that in this theatre he has the right to play, and other fellows and girls will pay to see him, just like he has put up his dime to see Jake and Jim. He counsels himself he could hardly believe that that fellow on the stage was really Jake. He looked so different and he seemed so different when he was shooting craps on the corner last winter. Tommy cannot fathom the mystery of the transformation, for he only heard Jakie say that he has been having the best time of his life playing at Prince Edward in the Prince and the Pauper. Tommy's desire to enact Prince Edward is so strong that it brings him to classroom and rehearsal work for three whole months, and when he finally does qualify in the part he gives us quite a different young prince from the one Jakie gave, and his impersonation is especially interesting for that reason. We see how it grows to be far better fun for Tommy to hurl make-believe golden coins into the midst of an admiring multitude of sixteenth century street gamin, all of whom, by the way, are his own intimate companions, than to shoot craps with the very same fellows on East Broadway. Perish the awful pedagogical thought in Tommy's mind that he was learning anything, even sharpening his perception to the point of recognizing the fashion of clothes in vogue at the court of good Queen Bess, and yet when it fell to Jakie's lot one day to help a new Lord Seymour to get ready to play, that is what happened.

Every part in every play at the Educational Theatre being taken by a different person at each performance, costumes are made of a middling stock size, and then ensues simple trust in the ascendancy of a prevailing lucky star that neither Gullivers nor Tom Thumbs may qualify for parts. However, if a Gulli-

ver does qualify, he gets his chance to play, and on this day, made memorable by the perspicacity of Jakie, a fellow much larger than any one who had as yet played the part was ready to play Lord Seymour. Try as he might there was no hope of the big fellow getting into the middle-sized jerkin and puffed trousers. The tights alone were serviceable, but obviously insufficient. Almost in despair the thought came to the writer to utilize an especially large costume which had been made for the prince in the production of Snow-White, which dramatization of the fairy tale had been costumed in the period of Louis XIV. The Prince's costume being produced, Jakie started to help Lord Seymour in dressing, but before Seymour had donned the coat of the Prince of Goldland, Jakie protested sharply, "We can't let him go on in that costume; it ain't the period, and all the people in the audience will know it. We've got to do something else. Suppose we get Hertford to change clothes with Seymour, because Hertford's coat is long and has no sleeves, so it will go on any one." This proved to be exactly the correct solution, and our boy's developed perception and resourcefulness saved a historic period, as well as the feelings of a discriminative audience.

Has the reader any notion that this general development of the human being was accomplished by merely encouraging Tommy to follow his own sweet will when he became fired with a desire to enact Prince Edward, and letting him have a good time? It took all of three months of careful, patient, loving endeavor to bring the soul of our boy of an east side tenement into points of contact with the soul and spirit of the little prince of the middle sixteenth century, and from these points of contact to stimulate him into action. The task was lightened for the teacher because, after all, Tommy had elected to do his own work, as every one must in the Educational Theatre. Not for an instant, heaven forefend, because of any desire to know about the history, the customs, or the manners of Merrie England in Elizabethan times, or to develop his own sense of kinship with gentleness and honor, but merely because Tommy wanted to play the part of Edward. He wanted to show his father and mother and all his friends his idea of Edward, he wanted to be Edward, and he loved his self-appointed task well enough to be willing to work in preparation until his Prince Edward was true not only to his, Tommy's ideal, but true also to the real young prince. There is the educator's point, the contact between Tommy and the prince. The boy had been willing to pursue his own ideals sufficiently far to carry them to objective issue. He had stuck to the hard, laborious part of his work until he had been able to do it well enough to offer to a large audience who were willing to pay to see it, and

yet our Tommy had not the slightest spark of dramatic talent and would never have been chosen in any public school to enact any important character even in a history lesson.

What has the playing of the character of Edward done for our Tommy besides affording him some months of great happiness? It has recovered and strengthened his own will power through the stimulus of Edward's will. Tommy has lost and so found himself in the joy and sorrow of the young English prince. The proper direction and control of Tommy O'Sullivan's dramatic impulse has brought him into such intimate association with young Edward, Prince of Wales, that the thrill of Edward's valor will forever afterwards be unconsciously a part of Tommy, for something struggling in his starved soul has demanded and received expression. In the last act of the drama when the young prince, in the rags of Tom Carty, the pauper, makes sturdy claim to his righteous throne, it is good to see the Bowery stripling raise his hand with conscious dignity, and when Lord Seymour with selfish motive would oppose him, cry out, "Hold, Lord Seymour, and stand not in the way when God brings right." Through the conscious imagery of another soul our boy has secured a new spiritual asset. That great lesson once learned, he has not further need of Edward, so he goes on to widen his circle of friends, to broaden his sympathies, to steady and control his emotions by their exercise in feeling points of contact with other lives. Born and bred on the Bowery, sleeping many a night in ten-cent lodging houses and picking his companions on the street, it is not likely that Tommy will ever be on intimate terms with an English Earl, but if it ever happens that he does meet an English gentleman, his stage connection with the life of Cedric Errol will make him very speedily recognize the difference between an English gentleman and a bounder, or for that matter the distinction between an American gentleman and a snob. Tommy himself, in company with his friends and intimates, is not at all troubled with the notion that he has histrionic talent. He knows mighty well that any of the fellows on the Bowery could do the same thing in this theatre if they wanted to give the time to it. Sophisticated audiences who, unlike Tommy, do not recognize the difference between dramatic instinct and dramatic talent declare that Tommy is a wonder. It is no use, you cannot deny it, Tommy is gifted. In truth they are a trifle disconcerted when they visit the theatre the following week and see the same character equally well enacted by Jakie; but never mind, their theory is correct. Jakie is also gifted and the writer entirely acquiesces, for in both conclusions they are probably correct. Tommy and Jakie in common with all the world are gifted with dramatic instinct.

Every Tommy and Jakie and Mamie and Maggie, as well as every Alphonso and Eustace and every Marjorie and Madeleine, money rich and money poor alike, every child born into our Lord's good world is gifted and endowed with the great heritage of imagination, the web and woof of which is woven of dramatic instinct.

"Not in entire forgetfulness,  
And not in utter nakedness,  
But trailing clouds of glory do we come  
From God who is our home."

Let us then not close the shades of the prison house upon the growing soul, but let us wait with bared heads before the trailing curtain of the child's soul and equip ourselves with ripened wisdom before we dare venture incautiously and irreverently to raise that curtain merely to satisfy the curiosity of an audience of onlookers. Let us realize that the trained imagination may be the most potent factor for good in life, whose development should not be lightly or ignorantly undertaken. Properly guided, it will give to this world of ours not alone its best poets, painters, architects, musicians and inventors, but even from a utilitarian standpoint, its greatest financiers and its most successful merchants, and equally important to the educator its Tommys, Jakies, Mamies and Kates fully developed into rounded selves, alertly responsive to their environment and in ready sympathy with humanity, all-around human beings, kin and comrade to the best with a brother's hand and understanding of the worst. The development of expression through the right service of dramatic instinct will no more specialize the actor than will the tuition of drawing specialize the artist or of music the musician. What such tuition will serve to stimulate is discrimination, a quick eye and hand and heart with added taste for the beautiful, while development in responsiveness to the best and noblest people and things of all the ages will create taste and discrimination in the choice of individual surroundings, deeds, actions and ambitions.

And here again a word of sincere caution that none may be in error concerning the grave evils which are certain to result from the misuse of the power of dramatic instinct in our children, and of the great and far reaching benefits which are sure to follow in the wake of its right and intelligent application. Its misuse will promote self-consciousness, vanity, egoism and superficiality; its true use will insure a lack of self-consciousness, righteous self-esteem, altruism and profundity; its misuse will shut in the darkening walls of personality; its real use will open wide the sunny windows of humanity. Its misapplication for the pleasure of an audience will make our children

hysterical, emotional and ill balanced; its proper application to their lives and character will produce in them a calm, well balanced judgment deep sympathies and a unique power of self-control. The ill use of dramatic instinct reaches the mind through the physical organs, a process working from the outside in; its true use reaches the mind and soul, whence are issued commands to the organs of the body, a process working from the inside out. The true cultivation of dramatic instinct is verily a teaching by the spirit, and the spirit alone can teach.

## TENTH ANNIVERSARY OF THE OCTOBER 23, 1908

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Ten years ago, a club of young mothers of Clark University, Worcester, Massachusetts, for the study not only of children, but of mothers wanted and needed to know. I limited and, although the limit has been always been a waiting list. While other clubs similar purposes in the vicinity have died and, at its Tenth Anniversary, a record was presented at a banquet, and has been editors of this journal, through the kind speakers, for publication. It has not attained but has been on the whole so interesting and it has believed that its achievements will be other centres, especially since every year received inquiring how to conduct successfully this kind. A copy of these proceedings shall henceforth be our answer to such letters. excellent one; the decorations were in red few friends were invited; and, after the brief addresses made the occasion memorable to all.

The first address was by the President, Mrs. Ley, and took the form of words of welcome.

Mrs. Bentley spoke as follows:

Some years ago, when I was a student in Child Study, the person to whom we looked for authoritative advice was the man pleasure to welcome here this evening as it was in Lincoln, in 1893, when the state associations of Iowa, Nebraska, and Colorado, him so far from home, that I first had the opportunity to Dr. Hall. I remember especially his eve education of the heart, and even now, I can still passages and phrases from it, so deep was it upon me.

My next opportunity was in 1898, in California, where the state educational association met in Santa Barbara. I might almost have been on the programme; for in their interest and delight in the work of the man with them, the programme committee

speaker from the far east, most outrageously. How we listened until the last word was spoken, and then, paying scant heed to the minor prophets, hurried away to the next section that claimed him; for the meeting was a large one, and all the divisions, round tables, councils, and what not, must have a special address, and none of them, from the kindergartners to those struggling with the college curriculum, were disappointed. Later, it was the name and reputation of Dr. Hall that brought us to Worcester.

Pardon these reminiscences, but perhaps now you will understand the peculiar pleasure and satisfaction it gives me to welcome, as our guest of honor, President Hall, of Clark University. Dr. Hall, we are very happy to have you and Mrs. Hall with us to-night, and as the high aims that animate your work have been our inspiration, we hope that we may keep to such a plane that you will never be sorry that you became the god-father of the Hall Club.

And to you, the fathers of the Hall Club, we would extend a most hearty welcome. Upon occasion, you have been dined and toasted for various reasons, but to-night it is as fathers that we greet you. It is a matter of history how the American girl burst upon the astonished gaze of Europe and held the admiring approval of those who assisted in her triumphal progress. It is only recently that the foreign visitors discovered the American man. This retiring person, who was content to stay at home and provide the funds for the brilliant advance of the American matron and her daughters, by sheer weight of native worth and ability has at length challenged the admiration of the world. In the fields of enterprise, in inventions, in discoveries, in explorations, and in finance, he has few rivals. Some critics claim that he lacks imagination and poetic insight (which we would deny); they say that the American man does not often spend his evenings reading poetry to his wife and children. But as a husband and father, the American man is unique. The only criticism offered is that he is too kind, too lavish, and too indulgent to those given to his care. I am sure that these are faults which we, as wives and mothers, are very ready to forgive.

To me there is something inexpressibly beautiful about the love a father has for his children. A mother must love her babies; the physical tie is so close, the association is necessarily so intimate, the daily and hourly care is of such a nature, that a mother might as well deny her own personality as to fail to love her child. But nature has laid none of these bonds upon the fathers; and yet how strong is their devotion, how deep their self-denial, how constant their struggle to provide for their children! We realize that it is this love of yours that

raises a wall around us and our homes, and makes our work possible.

We have welcomed you on other occasions. Father's night has become a function that we could not spare from our calendar. But we wanted you to sit at our table and to eat with us. Pray do not imagine that the common saying that places a prosaic organ very close to a man's heart had any influence with us in choosing a dinner as the form that our entertainment should take. I do not know why there should be something so deeply symbolic about such commonplace and necessary acts as eating and drinking. Perhaps it is because it goes below and beyond our human lives, and carries us back to the dim ages when,—to quote Dr. Hall—the awful mandate, "Eat or be eaten" held sway. Certain it is that there has always been something almost sacred about formally eating together. Compacts have been sealed in this way, and there are few races who do not feel a peculiar tie and obligation to those with whom they have broken bread and eaten salt. Nearly all religions celebrate their most solemn mysteries by eating and drinking. And so we feel that by this dinner we have celebrated our anniversary, and taken you into our fellowship as we could have done in no other way. We welcome you to our table; we sit around a common hearthstone; you honor us by accepting our hospitality. We give you our most hearty greeting, and welcome you most cordially.

You all know the occasion that calls us together. This celebrating of anniversaries is a custom too old and too universal for me to attempt to unearth its origin and progress. I leave that to those so well fitted to work out such problems.

When we meet to celebrate an anniversary, what a pleasure to have with us the people most intimately concerned. It is one of the penalties of an old organization that it can send no pioneer representatives to its celebrations, to keep the facts straight and the traditions accurate. On the other hand, it is one of the privileges of a young organization to be able to lift the veil that hides its origin, and to speak with personal authority on its founding and its history. I feel that we are especially happy to-night in our toastmistress. A woman who might have been chosen for any one of a half dozen reasons; and as well, a charter member, and president of the Hall Club during the first two years of its career. I take great pleasure in presenting to you Mrs. Orr, the toastmistress for the evening.

Mrs. Orr, the toastmistress of the evening, was greeted with applause, and spoke as follows:

*Madame President, Members of the Hall Club and Guests:*

The distinction of having been the first president of the Hall Club is

surely an honor, but I can assure you that the duties were undertaken with fear and trembling, and that the fear and trembling is still going on.

To-day we celebrate our tenth anniversary and we are proud and happy to welcome you all, although it is difficult to realize that we have been banded together so many years.

When four of us met one afternoon to hear what was being done by two other Mothers' Clubs, we little thought that we should grow to such a large club, in fact, have a waiting list; but, our founder, Mrs. Joseph Knight Greene, must have selected good material with which to build.

"Nothing great was ever achieved without enthusiasm," and enthusiasm has never been lacking in the Club in its work, whether it was psychology, nature study, chemistry of foods, or art.

If one were to find a wonderful gem, a beautiful picture in a rare book, he would immediately become interested to know something about it. Although you have all doubtless heard of the Hall Club, still you will perhaps be greater by hearing about its work.

One of our charter members has consented to tell you about it, and I now have the pleasure of presenting Mrs. William Clement Marble, who will give you a short history of the Hall Club.

#### HISTORY OF HALL CHILD STUDY CLUB

##### *Madam Toastmistress, Members of the Hall Club and Guests:*

Your chairman of the committee on arrangements for this occasion was artful as well as wise in her manner of letting us to do our little part for this evening. She first obtained our consent to speak by tactfully smoothing us the right way, so to speak; and then announced the fact who the principal speaker was to be. I, for one, began to feel myself shrinking until, like the little boy's shadow—"There might have been none of me at all." It was only by remembering that we cannot all be the same, and that great people are also considerate of the lesser ones, that gave me courage to give to you in part the history of the Hall Child Study Club.

"Every thought and every deed,  
May hold within itself the seed;  
Of future good and future need."

So in the mind of one of our members there one day arose a thought that the mothers banded together might accomplish much for their children, by exchange of thought as well as of experience; and being a woman of action as well as of thought, she looked about her for mothers who would make a congenial circle. Mrs. Joseph K. Greene's efforts were rewarded by four mothers gathering at the home of Mrs. Samuel H. Colton for a preliminary meeting on October 23, 1898. The four mothers who were present at this time were Mrs. Merrill D. Brigham, Mrs. Samuel H. Colton, Mrs. Joseph K. Greene, and Mrs. John H. Orr. The first regular meeting was held at the home of Mrs. John H. Orr. Mrs. Herbert W. Chamberlain, Mrs. Linwood Robinson, Mrs. Charles F. Stevens, and Mrs. William C. Marble with the four members previously mentioned, being present.

That day will always stand out clearly in the minds of all who were there. We realized the importance of the undertaking and were as dignified as young mothers could be, considering that we were almost afraid of each other.

The club though small seemed vigorous from the start and was fortunate in its selection of officers for the first year:—Mrs. Orr, President; Mrs. Greene, Vice-President; and Mrs. Irving, Secretary. We

were temporarily called—"The Woman's Child Study Circle, No. 2." Not caring to be known as "the second," we then considered the subject of a suitable name. Our officers displayed great energy and courage in always aiming for the best, and I feel sure I voice the sentiments of our leader in saying she was the happiest woman in Worcester, when she was able to say to the Circle, that the greatest man we have would allow his name to stand for our little band of mothers; so we became known as the Hall Child Study Club; and with Dr. Hall for us, who could be against us.

During the first years each member bought and circulated a book on child study and at the end of the year received it again. Later we bought books on household economics and nature, according as we studied these topics. The club subscribed for and circulated among its members the following magazines:—"Trained Motherhood," "Babyhood," "North Western Monthly," "New Crusade." After the members had read these magazines they were used by settlement workers. Meetings were held on first and third Wednesdays of each month. The first year was devoted to the study of the following subjects:—

List of Subjects for—

1898-1899

- "Let us live with our children" Froebel. (Motto on first calendar)
- Childhood Fears
  - Literature for Children
  - Birthdays and Holidays
  - Discipline
  - The Story of Life
  - Heredity and Environment
  - Sociability of Children and Playmates
  - Children's Imagination and Lies
  - Love of Nature, Pets and Plants
  - Mine and Thine
  - Hygiene in the Home
  - Accidents and Emergencies
  - Children's Manners
  - Children's Troubles
  - Nutrition
  - A Child's Religious Ideas and Training

During the first year Dr. G. Stanley Hall entertained the club at his home and also lectured to them on "The Evolution of the Soul." Some of the ideas we heard at that time still stand out very clearly in the minds of those who were privileged to be present and hear Dr. Hall speak. Many have been the courtesies extended to us by the people of Clark University and people of note in Worcester. Dr. Hall opened his own library to the club for a stated time, and all appreciated what that meant to one who loves books. And here I would say that Mr. Wilson, of the University Library, was very painstaking in getting us books and cheerfully giving us all sorts of information and suggestions to start us right. Mr. Goddard, of Clark University, spoke to us on "The Suggestibility of Children," a paper rich in ideas for parents. The club was also addressed by Mr. George Partridge, on "Excitement and Fatigue." Dr. Jennie Miner, on "Parental Life." The talk Dr. Hodge gave to the club on "Birds" has resulted in untold pleasure for all our families in the interest which observing and caring for them has brought out while trying to attract song birds to our homes. Dr. Sanford also addressed the club. And with a picnic at Mrs. Stevens's, we ended our first year's work.

The second year we took up the study of the following subjects:

PROGRAMME 1899-1900

- Training of the Will
- Relation of Parents to School and Teachers
- A Study of Temperaments
- Mothers' Rights
- Poetry
- The Bedtime Hour
- Amusements
- Periods of Growth
- Physical and Moral Training
- Sunday with our Children
- Temperance in All Things
- Children as Educators in the Home
- A Child's Development through Responsibility
- Studies of the Childhood of Great Men

Dr. Barton spoke to the club on "Nervousness," Dr. Chamberlain spoke on "The Savage and Civilized Child"; Mrs. Orr read an article by Dr. Hall on "Kindergartens"; Miss W. Gordon and Miss C. B. Rood illustrated "Finger Plays;" Mr. Norman Triplett spoke on "The Fooling Instinct of Children"; Mrs. G. Stanley Hall spoke to the club telling of work accomplished by a Boston Mothers' Club, at a tea given by Mrs. Stevens in honor of Mrs. Hall who was unanimously elected an honorary member of the club; Mr. Willard S. Small spoke on "Unselfishness of Children"; Dr. Willard Scott gave a sketch of the life and character of Rousseau; Dr. Rockwell addressed the club on "Value of Foods", on Fathers' Night. During this second year we extended our membership to 25. The meetings were not only pleasant gatherings, but also, most profitable opportunities for study. We have striven to be in harmony with the law of unity and so have made some strides in growth. About this time nature was talked of a great deal in schools, and children asked many questions at home. Mothers then found that in order to give intelligent answers, we must of necessity turn students ourselves on the subject of Nature. Dr. Hodge spoke at Clark University on "Nature", the "Mothers in Council", of Springfield, also being present.

The following list of subjects was studied during the year 1900-1901:

- Autumn Seeds, Nuts and Fruits
- Forestry. Nest Census
- The Aquarium. Animal Pets
- Winter Birds and Their Care
- Birds' Nests and Their Construction
- English Sparrows. Bird Calendar
- A Child's Interest in Animals and its Expression

Dr. W. H. Burnham

- Spring Birds and Their Migration
- Work of Birds in Insect Destruction
- Insects of Gardens and Lawn
- Early Spring Flowers
- Flower Catalogue and Home Decoration
- Insects and Toads
- Bees. Cross Pollination
- Summary. Nature Study

Dr. C. F. Hodge

1901-1902

- Butterflies
- Fall Flowers
- Butterflies

Miss Dolbear

TENTH ANNIVERSARY OF THE

Ferns  
Cocoons  
Stones  
Insects; helpful and injurious  
House-Carriers Under Water (Caddis flies  
The Flora of Worcester  
Spring Peepers  
Spring Flowers  
Identification of our Common Birds, Their  
A Woodland Ramble  
Trees  
Mushrooms

1902-1903

This year Dietetics and Household Economics  
Institute as bearing directly on the welfare of  
Food as Applied to Nature  
The Body's Requirements and its Dynamics  
Foods, Their Chemical Constituents and their  
Dietary Standards and Their Practical Value  
Cereals and Vegetables and Their Importance  
Cheese and Eggs, and the Value of Condiments  
The Art of Cookery as Shown in Preparation  
and Desserts  
Fish as Food  
Needs of School Children  
Tuberculosis  
Food for School Children  
Modern Dietary

1903-1904

My Dietary for a Week  
An Ideal Dietary for Three Weeks  
Second Dentition  
Educational Significance of Children's Growth  
Physical Changes at Adolescence  
Parents' Opportunities for Moral Education  
Labor Saving Devices in the Homes  
Sports and Athletics for Adolescents  
Misunderstanding of Adolescence  
Lying Propensity in Children  
Food for Adolescents  
Our Children's Collections  
Children's Home Tasks  
Summary of the Year's Work

HALL CLUB PICNIC

This has been a review of the last three years  
profitable to study a combination of Nature,  
cent Period.

1904-1905

The Woman Errant  
Outing to Sterling  
Duties of Parents to Public Schools

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The Preparatory Schools	
Medical Inspection in Schools	
School Hygiene	Dr. Burnham
The Private School	Dr. Abercrombie
Resident and Non-Resident Help	
Uses of Cold Storage	
The Preserving of Foods	
Cost of Living	Mrs. Ellen Richards
Alternation of Generations in Plants	
Mosses and Liverworts	
Ferns	
Florida Stereopticon Lecture	
Visit to Simmons College	
1905-1906	
Some Emergencies and How to Meet Them	Dr. Edith Clark
Florence Nightingale	
The Woman in Germany	
Indian Arts and Industries	
Child Labor in the Past	Miss Porter
Home Life in the Olden Time	Miss Frances Morse
Household Economics	Miss Burrington
Stereopticon Lecture on Ants	Mr. J. P. Porter
Letters from Alaska	
Romance of Alaska	
Greece	Mrs. Sheldon
Fairy Stories	Mrs. C. F. Hodge
Adolescence (Father's Night)	Dr. G. Stanley Hall
The Madonnas	
Music in the Home	
Birds	Miss Ball
A Musical Programme	Mr. Chauncy Lyford
Bees	
Spring Flowers	Miss Anna Schryver
June Picnic	

1906-1907

The programme committee gave us some of the ideal as well as the practical this year. Even the cover has been the most appropriate one we have ever had and will be treasured by us all.

THE WORLD BEAUTIFUL

England	Mr. C. J. Dyer
Germany	Mrs. Hodge
Russia	
Japan	Dr. Blakeslee
Holland	
America	

THE HOUSE BEAUTIFUL

William Morris	
The Drawing Room	Mrs. G. Stanley Hall
The Dining Room	
The Library	
The Nursery (An Ideal Nursery being exhibited)	
History of the Church	Dr. Blakeslee
The Reformation	
The Higher Criticism	Mrs. Alexander Chamberlain
Allowances	

Obedience  
Athletics  
How to Live Nearer to Nature in our Homes  
Annual Picnic

Miss Anna Schryver  
Red Farm

PROGRAMME 1907-1908.

How to Promote a Taste for Art in Children  
Spain  
Paris  
Rome  
Venice  
Northern Italy  
Albrecht Dürer and His Contemporaries Dr. Samuel P. Capen  
Munich  
Dresden

FATHER'S NIGHT

The Value of Art in Teaching Children Dr. G. Stanley Hall  
The Netherlands  
England Mrs. Helen D. Burgess  
America  
Masterpieces in Literature for Children Mrs. C. F. Marble  
Boston Public Library and Fenway Court  
Annual Meeting  
How Insects Fertilize Orchids Mrs. Edmund C. Sanford  
Picnic

Our records show that we have taken up Child Study, Nature Work, Household Economics, Adolescent Period, and Art. We would resent the thought that we have left the subject of Child Study and gone to other fields of study to the exclusion of the child. For when the mother was interested in nature the children learned of her. So it was when we have studied art, the children have had the seed of fine art sown in their fertile brains. So whatever we have taken up has been with the idea of benefiting the children.

This club has not drawn the mother from her home duties, but rather it has tried to point out how exalted and important her home life should be. It is of interest to note that during these ten years there have been twenty-two new babies in our club, and the Children representing the Hall Club at present number eighty-seven, and in looking over the list of fifty-two mothers who have been members, their children swell the number to one hundred and thirty-three children.

Each mother, as she looks at her little one feels like saying with Heine—"Du bist wie eine Blume, so schön, und hold, und rein" and that they may always remain so is the earnest wish we breathe for them all.

In the early years the club formed a custom of presenting a silver spoon to every new baby that came to us. I am sure that each proud possessor of a Hall Club spoon, will, as years go on, value it as one of their choice possessions.

While looking over the records preparing for this paper the writer has had a taste of how very delightful memories can be when they are pleasant. Time will not permit me to dwell on the splendid work accomplished by individual members or of their abundant hospitality. This club has brought out qualities in the mothers they otherwise never have used or even dreamed they possessed.

I cannot pass without referring to the papers that Mrs. Lyford and her gifted family have given to the club, they have all been very profitable. Many of us being benefited by their suggestions.

The afternoon on Greece was interesting as well as instructive; after the paper, there were Greek refreshments served by a Greek matron, assisted by six Greek maidens.

The afternoon with fairy stories will long be remembered, one little fairy has whispered that I must not omit mentioning what great fun it was for fairies and brownies to bring the Giant from his den.

We have also had the honor of listening to Mrs. G. Stanley Hall, and all shall remember the delightful day at Simmons College. Other speakers have been President Carroll D. Wright, Mr. Beals, and many others. Father's night will always linger pleasantly in our minds for then we have had of Dr. Hall his best. A special treat was in the opportunity to meet Judge Lindsey, who was Dr. Hall's guest and who spoke in a personal way about his work in Denver. The list would not be complete without reminding you of our fine times with outings and picnics at Sterling, Happy Hollow, and Red Farm. Our annual picnic with Mr. and Mrs. Colton, at their summer home, is looked forward to and long remembered by all the families as a red letter day in our calendar.

No doubt you will notice omissions on my part that you will think ought to have been referred to, but if I told of all the good times we have enjoyed, there would not be time for any one else.

It is with great sorrow that we record the loss of our beloved and highly esteemed member—Mrs. Myron W. Stickney. In her, the club has lost an ideal member.

They say young organizations make much of a tenth anniversary, perhaps it may add to this occasion if we remember that this is the 165th meeting of the Hall Club. I would not leave the impression that all we have attempted has been a shining success; very often the best sounding theories when tried at home were impossible for our children. It was only by a careful blending of some theories with our everyday routine that at times made a happy combination. Our usefulness cannot be measured by these words. It is when we hear of women standing high in educational circles say that they are desirous of being one of us, that we feel all we have ventured has not been in vain and for the next ten years we hope the club may continue to gain in knowledge and experience as it has in the past.

If we have achieved anything worth while it is because we have all had as our inspiration *the name we stand for.*

Mrs. Marble's paper was greeted with applause.

The toastmistress then said :

Having heard about the Club, what is more fitting than that you should be told a bit about our beautiful city, with its many hills and fertile valleys?

We have one present who is splendidly fitted to give much information, one who has filled the highest office which our city can bestow upon a citizen, one who has "dwelt in marble halls."

I now have the honor of presenting the Honorable Walter H. Blodget, who will respond to the toast, Worcester, the Home of the Hall Club.

Ex-mayor Blodget here made a few interesting but informal remarks.

The toastmistress then said :

Once or twice a year it has been our privilege to hold meetings in the evening and invite the fathers.

TENTH ANNIVERSARY OF THE H

At first we fancied that you came somewhat re  
knew you anticipate the events from season to s  
Surely guests were never more welcome at a  
are to-night.

It is with pleasure that I now introduce Mrs.  
will respond to the toast, Our Guests—The Fath

OUR GUESTS, THE FATHERS

By Mrs. Clifton H. Mix

I

The toast to which we now have come  
Should lend a tongue e'en to the dumb,  
For of our cake it is the plum—  
The Fathers.

II

So, if my Pegasus is lame,  
And these poor lines seem somewhat tan  
'T is not the theme that is to blame,  
O Fathers!

III

When first the budding sprout grew Gre  
Whose ten years' fruitage now is seen,  
I fear 't was held in light esteem  
By the Fathers.

IV

They seemed to think it all a joke,  
And often our words would a smile provoke  
When of our serious aims we spoke  
To the Fathers.

V

But all remarks we patiently bore,  
And to reply we meekly forbore,  
Because we have such reverence for  
The Fathers.

VI

Then too we remembered the marvellous  
Which surely must bring our children to  
And also the source from which it came—  
The Fathers.

VII

So, ceasing at once to plead our cause  
We determined to strive without a pause  
And by merit alone to win applause  
From the Fathers.

VIII

We studied nature; we studied art;  
We studied the home in its every part  
Clear down to the kitchen, dear to the heart  
Of the Fathers.

## IX

We studied problems of every kind;  
 We studied the laws that govern the mind;  
 We studied everything we could find—  
 Even the Fathers.

## X

We studied long, we studied well,  
 Whatever worth while in our pathway fell;  
 Though all we learned, we omitted to tell  
 The Fathers

## XI

As time went on, signs not a few  
 Showed plainly to us that their interest grew,  
 Until we discovered an attitude new  
 In the Fathers.

## XII

'Twas then they hailed with great delight  
 An institution called Fathers' Night;  
 Those rare occasions when we invite  
 The Fathers.

## XIII

Though you may sometimes have been in doubt  
 As to what this Hall Club was all about,  
 We have never been willing to do without  
 The Fathers.

## XIV

Ten years of work, ten years of play  
 Have brought us to this anniversary day.  
 And we owe much we can never repay  
 To the Fathers.

## XV

Through the smiles and tears that come with the years  
 Often in joy and sometimes with fears,  
 The comrades whose presence our pathway cheers  
 Are the Fathers.

## XVI

So now with me your glasses fill  
 And drink this toast with a right good will,  
 For with all their faults we love them still,—  
 The Fathers.

This poem was received with great applause.  
 The toastmistress then said :  
 Our season's work over, we could truly say with the poet,  
 "Snatch gaily the joys which the moment shall bring,  
 And every care and perplexity fling,"

and have an outing.

When a certain gentleman was requested to respond to the toast,  
 Club Outings, he replied that he had attended only one. However,  
 knowing of his wonderful power of observation, we felt that he was

especially qualified to speak on the subject, and it is with pleasure that I present to you Mr. Joseph Knight Greene, husband of our founder, who will respond to the toast Club Outings.

*Madam Toastmistress, Ladies and Gentlemen:*

When the toastmistress invited me to speak at this banquet she promised me that I might select my own subject. I am not the first man to be deceived by some woman in the belief that he could select his subject. Every woman can make any man believe he is selecting a subject, but after some ceremony has made his selection irrevocable he finds that she has selected him for her subject and he has selected her for his ruling sovereign.

I spent much time in finding a subject which should measure up to the occasion and in laying out a line of thought appropriate to the subject, hoping in the intervening time to find language in which to clothe my line of thought. I rather planned to comment philosophically upon the evolution of the work of the club from the child study of early years to the broad culture in art and literature of the present, with possibly the future solution of the, as yet, unsolved problems of the universe, winding up in a burst of genuine eloquence in which I would pay a magnificent tribute to the personnel of the Hall Club. I came down to my office the next morning with my temperature several degrees above normal from the warmth of my enthusiasm only to be informed by telephone that my subject would be "Hall Club Picnics."

I note that the other speakers have been assigned subjects with which they are thoroughly acquainted. Any one of them could write volumes upon the assigned subject without going beyond the precincts of personal experience and acquired knowledge, while I have been to but one, or at most but one and a half, of the club outings. I did attend one club picnic and I had a most excellent time. I had one experience that day which I never intend to forget. In the morning the boys played a game of base ball and with the rashness of youth I accepted the position of catcher. We had played but two or three innings when I misjudged one of the new-fangled curves and caught the ball on my wrist. There speedily developed a bunch of such proportions that if one of the scientific observers of Clark University had seen it, and not known the cause, he would have accepted it as irrefutable evidence that man was descended from some form of animal with knee-caps both fore and aft.

Although as I remember there were some seven doctors lying around on the grass watching for an accident, I employed none of them, as I did not care for a case of permanent disability, but went up to the house where the fairest and most charming member of the Club bound her dainty handkerchief about my wrist and, borrowing a bottle from the hostess, simultaneously poured hamamelis on my injured wrist and words of gentle and healing sympathy into my waiting ear. The last was so pleasant that I almost wished that I had seen double and caught the ball on both wrists.

A picnic is a most excellent place to differentiate between male and female human nature. When a man goes to a picnic, and bosses the job himself, he takes for lunch two or three sandwiches and a banana, and eats them as soon as he gets there, then spends the rest of the day communing with nature and in varied recreations. A woman thinks she must exercise the same lavish hospitality and elaborate service at a picnic that she does at home. No sooner has the Hall Club determined the date of the picnic than she begins to order eatables for it. The night before she makes up a quantity of sandwiches of every conceivable size, shape, and composition, with other things to go

with them. In the morning she packs the family clothes basket with the good things she has provided, not forgetting to put in sundry table ware and twice as many napkins and doilies as there are members of her household. She repeatedly cautions her husband to be sure to use his napkin, which he does, then puts it in his pocket and forgets all about it. She wonders all summer what has become of her best napkin, and late in the fall when putting away his summer suit, as she is tucking moth balls in the pockets, she finds the missing napkin.

When the party reaches the grounds the husbands and the children disperse seeking amusement, while the women begin immediately to prepare for lunch. They seek a shady spot under the spreading branches of some giant tree, and spread out their shawls, waterproofs and other clothing for table cloths and arrange the food according to the most approved etiquette. They forget that the sun moves westward fifteen degrees per hour so when everthing is ready the shady spot has become the hottest place on the ranch, and everything has to be done over. About eleven o'clock the husbands and children, ravenously hungry, begin to clamor for food, but are told they can have nothing till all is arranged. About one they are ready and when the men have eaten twice as much as they ought, then, the toastmistress says: "O, Doctor, you must try one of my raspberry tarts." And the president of the club says "I have made some doughnuts by a new prescription and you must all try them." And before they are through every member of the club insists that every other member's husband must sample some of her cooking. And when at last they all have eaten all they can possibly hold they gather up twelve baskets full of fragments which they take home to live on for the remainder of the week. Yet, notwithstanding the idiosyncrasies of women, picnics are of great value to those who attend. There is a freedom from the formal rules of society which permits men and women to come into closer touch with each other, and because of this freedom many a casual acquaintance has become a permanent friendship. For intellectual comradeship and heart communion, a single day at a picnic is worth a thousand years of those formal social functions at which a great mass of people, having put on their best clothes with reluctance, crowd into some residence in impossible numbers, crush past the host with eager haste to reach the dining room, eat several dishes of ices and other indigestible food and rush home with relief.

It would be an interesting historical study to determine when this insane custom first arose, and a still more psychological study to decide why men and women of seeming sense in this enlightened age, continue to suffer at formal social functions.

I find from the dictionary that the word picnic means an excursion away from somewhere. Having been more or less in touch with the work of this club from the beginning I have been interested to observe how it has taken a picnicaway from its original purpose of child study. This change of purpose has been a great relief to the children of the club. Since every woman has her independent ideas as to the nurture and training of a child, and since every member of this club sincerely endeavors to put in practice all she learns from her associates, just think what an awful calamity it would have been to the children of the club if all the combined ideas of these thirty women had been practised upon the innocent offspring of the club.

The enlarged work of the club has not only made the members more lovely, if possible, but has reacted upon the husbands and I observe a marked improvement in them in these years. Perhaps it may be permissible to remark here that probably nowhere in the wide world can there be found thirty men, brought together by any

combination of circumstances, who combine so many points of perfection, manly beauty, intellectual strength, spiritual loveliness, as possessed by the composite husband of the Hall Club.

I suppose that most men, distinguished in the world of achievement, attribute a large share of their success to the influence of their mothers. If you will carefully analyze the tribute each great man pays his mother you will find that he holds her memory in holy reverence, not because of what she did, though she may have made heroic sacrifices for his education and his opportunity, but for what she was.

There is, occasionally, a woman in the ordinary walks of life who rises above the routine of daily tasks, onerous though they may be, and comes into touch with the divine. She not only passes on to her child through the law of inheritance, her own intellectual supremacy, but by her standard of living inspires him to do his level best in the work of the world.

So, I believe, by the intellectual power gained through a knowledge of the best literature, by the culture that comes from the study of nature and art, by the graciousness attained by the exchange of social courtesies, by all the varied work of the club the members are becoming mothers who are exercising that undefined influence over their children which inspires them to live lives of high attainment and generous service.

I thank you, Madam Toastmistress, for this opportunity to lay my tribute at the feet of the Hall Club.

Mrs. Orr then said :

The Hall Club can boast of 87 children. Is not that a magnificent showing?

Of the 87 children, 42 are girls, of whom we are exceedingly proud. Somebody has called the girls the "Easter lilies of the world" and truly so.

From among all our members, who can more appropriately speak for our girls than the mother of four charming daughters?

It gives me great pleasure to present Mrs. George S. Clarke, an ex-president of the Club, who will respond to the toast, "Our Girls."

Mrs. Clark made an interesting address upon this subject, which has not been furnished for publication.

The toastmistress then said :

We read in the Old Testament that "Nathan being sick, trusted not in the Lord, but sent for a physician,—and Nathan was gathered unto his fathers."

Now, if Nathan had lived in this age of specialists, he might have prolonged his life many years.

The medical science has made great strides since these early days, and many maladies can be cured in a short time, which proved fatal centuries ago.

Although the gentleman rather objected to "talking shop," it is with pleasure that I introduce Ernest V. Scribner, M. D., husband of our honored vice-president, who has consented to respond to the toast, *The Healing Art*.

Dr. Scribner then made a few amusing remarks upon "The Healing Art" as practiced by the husbands of the Hall Club.

The next speaker was introduced as follows :

When Mr. Aldrich was asked to respond to the toast, *The Boys*, it was not because of his large family of boys, for he is the fond father of a beautiful little girl, but because of his intimate relation with many boys in his profession.

In living among several hundred boys, one must surely become acquainted with many kinds and feel at home with them.

They may be the Apaches of the street, the law breakers to-day, but to-morrow they are the law makers and are always the sweethearts of the mothers.

It is with pleasure that I present Mr. Fred D. Aldrich, who will speak for The Boys.

Mr. Aldrich spoke on the traits of boys as he had observed them.

Dr. Bell was introduced as follows:

It is not every club which can boast of an University President, Dean of a College, college professors, eminent divine, distinguished lawyers, renowned physicians, successful business men—and a poet.

We have always been singularly fortunate and to-night greatly honored by hearing a poem written especially for this occasion, and it is with very great pleasure that I present to you, Dr. R. R. Mowry Bell, who will read a poem which he has written especially for us.

#### CHILD STUDY

Dr. R. Mowry Bell

As some bowed verger with his pan and broom,  
Whose earth-bent eyes the light of day bewilders,  
Toils in a gray cathedral's sculptured gloom,  
Oblivious to the art of vanished builders;

So often, blindly, day and week and year  
Our life rolls on: the round of custom holds us:  
We spin through space on our enchanted sphere,  
Unmindful of the magic that enfolds us.

Each night the stars look down to rouse our awe:  
A marvel is each day, each truth of science,  
Held in the clutch are we of mighty law,  
Which meets our keenest searchings with defiance.

No wonder equals this, that—in a sense—  
With the Creator's touch we mingle ours.  
Well the great Artist knows our impotence,  
Yet bids us aid him with our feeble powers.

Over His shoulder as He works we gaze;  
See beauties grow and formlessness diminish:  
Often—O marvel!—in our hands He lays  
A half-made human soul for us to finish!

No worthier task exists than opening eyes  
And ears to the magic of this world of beauty:  
No nobler field of interest than lies  
In showing little feet the paths of duty.

We call them ours, these children at our knee:  
We teach as we were taught by those who bore us;  
But we ourselves are children, and we see  
Our lack of fitness for the task before us!

Leaders and sculptors are we all perforce,  
To shape the taste, to guide the wise decision;  
And we would question wisdom at its source,  
And gaze on beauty with the master's vision!

And we would gather in from far and nigh  
Food for the mind, pure intellectual leaven;  
And keep a window open to the sky,  
That souls may pasture on the fields of heaven!

"What's in a name?" When we decided to call our little club "Hall," we did not fully realize how great a name we had selected. It has proved to be almost a fairy wand—for we have had many distinguished educators speak to us, all delighted to help, for in helping us, they were learning our Patron Saint, Dr. Hall.

It is with very great honor that I now introduce Dr. G. Stanley Hall, who responds to the toast, Life's Joys, for who knows more about the joys of life, or who has drunk more deeply from the cup of life than our honored Dr. Hall?

Dr. Hall expressed his great satisfaction at being present and declared that the honor done him by giving his name to the Club was more than he deserved, and suggested that this was the proper time, as the Club was to enter upon a larger sphere of activity in its second decade, to give it a more distinctive name.

In closing the exercises Mrs. Orr said:

I ask you all to drink with me to the health of the founder of the Hall Club, for to her we must give not only the success of the Club, but the success of this evening, Mrs. Joseph Knight Greene.

It is one of the white moments of our life when we can in some way show our appreciation of one who has ever been our friend, counsellor and inspiration, and I ask you to drink with me to our Patron Saint, Dr. G. Stanley Hall, for whom the Club was named. Although there are forty-nine present here this evening, still a number of our members have been detained, some by illness, some by absence from town, others by circumstances over which we have no control, and I ask you to drink with me to our absent members.

Never were the rhymes—

"It's hard for you-uns and we-uns,  
It's hard for we-uns to part;  
It's hard for you-uns and we-uns,  
Cause you-uns have we-uns hearts."

more true than to-night, and it is with regret that we must separate, but looking forward to our next Father's night.

## LITERATURE

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*Moral Instruction and Training in Schools*, edited by M. E. Sadler.  
Longmans, Green & Co., London, 1908. 2 vols.

This is a report of an inquiry by a committee working on the basis of a circular. It is impossible to do justice to such a book in a brief review. Some of the chapters are written by very eminent men, such as Professor Eucken, on the problem of moral instruction; Professor Findley, on the growth of moral ideas in children; Professor John Adams, on precept versus example; Dr. Muirhead, on the religious foundations of moral education; Dr. Maher, on Catholic ideas and purpose; Mr. J. H. Bradley, on moral training in the secondary schools; Mr. Cecil Grant, on the relative failure of the English public schools; Mr. Legge, industrial and physical training. Among other topics are several on moral instruction in France, Germany, and other countries for the different grades; and there are various symposia on such topics as how the ethical efficiency of education could be increased, on women teachers and moral education, on evidence as to its efficacy, on the preparation of teachers for the work, on Sunday Schools, and adult moral training. Besides the thirty-three chapters and the reports from different countries, there is a bibliography, a list of investigators and of those who gave oral evidence, accounts of the cost, etc.; so that the work as it stands is a thesaurus of both theory and practice.

*L'éducation de la femme*, par M. C. SCHUYTEN. Octave Doin, Paris, 1908. 458 p.

This eminent expert in school hygiene sums up many of his conclusions in a book of great weight. In the first part, dealing with physical education, he résumés the studies of bodily measurement, muscular force, right-handedness, and each of the organs of sense. In the second part, on intellectual and moral education, he treats of the intellectual destiny of woman and discusses feminism and the immediate, psychic influences of the school, intellectual fatigue, methods of studying it and conclusions, the modes of measuring intelligence and the analysis of juvenile minds, the differences between the morning and the afternoon hours for study, and the branches of education. In the third part, he deals with domestic education and elaborates an ideal programme, with a final chapter on the proper modern initiation to puberty and maternity, and the duties of husband and wife.

*Woman under Socialism*, by AUGUST BEBEL, Tr. from the German by Daniel De Leon. Labor News Co., New York, 1904. 371 p.

This work is called by the translator "the best aimed shot at the existing social system, both strategically and tactically considered," for the woman question is the weakest link in the capitalist's mail. Woman before Christianity is contrasted unfavorably with her condition under this influence. The chief topics are sexual instinct, wedlock, checks and obstructions to marriage, numerical proportion of the sexes—its causes and effects, prostitution necessary in a capitalist world, woman as bread winner, her civic and political status, the socialization of society, woman in the future, over population, etc.

*The Study of Nature*, by SAMUEL C. SCHMUCKER. J. B. Lippincott Co., Philadelphia, 1908. 315 p. (Lippincott's Educational Series.)

Dr. Schmucker has been for many years one of the most successful popular lecturers in the field of nature study and appreciation, and here with the aid of Mrs. Schmucker he brings together some of his material. He regards the world spirit as the influence of Providence upon the soul, and the whole race as at school to these supernatural forms. Environment and not law has moulded man into his present status. Words name but do not engender ideas; only things can give them. The teacher is to preside over the advancement of these normative influences of nature on the soul. He should first of all desire to kindle and increase the love of nature. This is set forth in the preface by the editor of the series. The work itself is in three sections: Theory, the material, and the course. Under the first we study what nature is, its general aim, purpose, the teacher's preparation, work in the schoolroom, work in equipment of the school and subjects suitable for nature study. In the second section, insects, water-dwellers, frogs, toads, reptiles, birds, domestic and wild animals, the general life of plants, their reproduction, and, finally, the heavens are considered. The third section contains only two chapters: One a course in nature study, the other, helpful books. The work is enriched by fifty-four cuts, and a few full page colored pictures.

*Northern Trails*, by WILLIAM J. LONG. Books I and II. Ginn & Co., Boston, 1908. (Wood Folk Series, Books VI and VII.)

In these books, the frontispiece is the picture of a wolf-dog with one snap laying bare the heart of a large deer, one of the causes for which the author was classed as a "nature fakir". The author also prints three letters confirmatory of this incident by people who have lived among wolves. In general, the stories of these books are very humanistic. In our humble opinion, the author should represent humanization of animal life as his forte, rather than accurate observation. We note that in one volume, he represents a salmon springing up a waterfall and just where the water begins to drop. At the top of the fall the salmon is well out of the water and turning a curve from a vertical to a horizontal direction in the air. This, we submit, is not only contrary to observation as to how the salmons leap falls, but represents an impossible way of doing so. Observations agree that, while the salmon may leap out of the water and plunge into the falls a little way above the surface, they always swim over the lip of the fall.

*An Alabama Student, and other Biographical Essays*, by WILLIAM OSLER. Henry Frowde, New York, 1908. 334 p.

The author has had a life-long interest in biography as a recreation, and has a strong conviction of its value in education, so that when he has had an occasional outside address to give, it is in this field that he has chosen his subject. Nearly all have been printed. All the men treated are physicians, save only John Keats, "the apothecary poet." Half of them are Americans. The first essay, which gives the title to the book, is on Dr. J. Y. Bassett, a humble but very original man. The other men treated are: Thomas Dover; O. W. Holmes; Locke as a physician; Elisha Bartlett; "a backwood physiologist" Beaumont, who studied the famous case of Alexis St. Martin; Louis, the great French teacher of many eminent American physicians; William Pepper; Alfred Stillé; Sir Thomas Browne; Fracastorius; Harvey and his discovery.

*Old Indian Legends*, retold by Zitkala-Sa. Ginn & Company, Boston, n. d. 165 p.

These legends are relics of our country's once virgin soil. They are

tales that aboriginal children love to hear by the night-fire. All the elements were personified and the whole world centred in the wigwam. The writer heard these stories in her youth. Often one helped the other restore lost links. These old legends belong quite as much to the white man as to the Indian for the two are much alike at heart. There are fourteen tales, each with its illustration. The fact that the author is a native Indian adds very much to the natural interest of these tales, which she certainly has the fine art of telling. Some are not entirely new, but the burden of the book is so.

*My Story*, by HALL CAINE. William Heinemann. London, 1908. 406 p.

The most pedagogical part of this admirable autobiography is the author's account of his childhood days in the Isle of Man. Here he lived in a thatched cottage, heard no end of tales of fairies, witches, witch doctors, evil eyes, and verily believed that merry little fellows, wearing cocked hats and velvet jackets, pranced about in the marsh, some of them favorable and some malicious. The earth and air were full of all sorts of supernatural influences. The primitive patriarchal life, this author loves to paint, and some of his best characters and most striking incidents were derived from his own observations of the Manx people. They were a litigious lot, very gossipy, with no poor laws, no insane asylums for idiots, and lunatics wandered at large and were cared for by their neighbors. The bank was represented by a parish money-lender; the religious life was "more vocal than active" and a curious mixture of sincerity and grotesqueness. Drink was the great evil. Many an old custom was kept up. A rich life, indeed, it was for a boy.

*Some Characteristics of Childhood*, by ALICE RAVENHILL. E. J. Arnold & Son, Leeds and Glasgow, n. d. 70 p.

It is well that the author reprinted her articles from "The Guardian," and added a little to them. Here we find discussed general characteristics of child life, elementary requirements of infants, food, nurture, growth and development, educational needs, place of play, traits of adolescence, and a bibliography; all in seventy pages. The author has herself made an interesting study of the average hours of sleep of the different ages, from infancy to sixteen, basing her data upon 4,521 girls and 3,935 boys in the elementary schools of England. One striking feature is that from twelve to fifteen inclusive, girls sleep about one hour more than boys; from seven to twelve years of age, boys fall from ten to eight hours; and the actual time of both is at all ages below the standard. Until nine, twelve hours in bed is not too long; and until six or seven, a mid-day rest of from one to three hours is important; eleven hours is no more than the rapidly growing boy or girl of twelve need, especially if there is a good deal of activity; "indeed the conventional hours of maturity could be advantageously postponed till twenty-one." Among the majority of children there is now a very serious deficiency of sleep, even amounting to one-fourth during the entire period of childhood, because noises and other factors interfere. Insufficient sleep amounts to overwork, and sleep is the best insurance against nervous diseases and insanity. The other topics on which data are compiled are well treated. The book is, on the whole, an admirable compend to place in the hands of parents.

*A Study of Mathematical Education, including the Teaching of Arithmetic*, by BENCHARA BRANFORD. The Clarendon Press, Oxford, 1908. 392 p.

This study is based on twenty years' experience in school and col-

lege, and ranges from the very elements of accounting to honor students in our universities. The writer has given lecture courses on the teaching of mathematics for many years. Among the twenty-four chapters, lectures, or lessons, are measurements, points in the history of arithmetic, development of numbering in the race, experiments in teaching geometry to the blind, sub-conscious experience, origin and development of mathematics, physiological considerations, evolution of axioms, genesis of geometry, etc. The book cannot fail to be of interest and value to teachers of mathematics of all grades.

*Life Questions of High School Boys*, by JEREMIAH W. JENKS. The Young Men's Christian Association Press, New York, 1908. 139 p.

These brief outlines of discussions are based on experiences as both teacher and father. They deal with the great questions that must come before boys, viz., the relations of high school to life, custom, habit, societies, cliques, fraternities, liquor and tobacco, slang and profanity, lying, cheating and graft, gambling and betting, sex, attitude toward work, the self-centred man, social service, politics, success, religion. References and blank pages for notes on each topic are inserted. An outline of the topic is presented with quotations, and questions are asked to be answered by the boys. It is a valuable manual.

*Education and Industrial Evolution*, by FRANK TRACY CARLTON. The Macmillan Co., New York, 1908. 320 p.

The chief topics treated in this work are: the educational epochs in the United States, the relation between educational advance and industrial progress, new aims, ideals and methods, the education of woman and her relation to industry, manual training, laboratory work, the Arts and Crafts movement, organized labor and education, etc. The second part treats of actual or present conditions of the educational system, viz., industrial, trade, technical, agricultural, commercial, continuation, truant, juvenile delinquent schools, new projects, and finally the school of the future.

*The Administration of Public Education in the United States*, by SAMUEL T. DUTTON and DAVID SNEDDEN. The Macmillan Co., New York, 1908. 595 p.

This is a valuable memoir. It discusses factors favoring the advance of education, the national government's relation to the same, the State and education, administration, city systems, financing, school-houses, text-books, supplies, superintendence, teaching staff and its importance, supervision, courses, grading, promotion, administration of each class of schools including those for defectives, evening schools, compulsory education and child labor, discipline, government statistics, school and society, etc.

*The Hard Palate in Normal and Feeble-minded Individuals*, by WALLACE CHANNING and CLARK WISLER. Anthropological papers of the American Museum of Natural History, Vol. I, Pt. V, pp. 283-349.

This is a very valuable monograph, and the result of years of painstaking study. The comparisons of measurement include the type of palate for normal and for feeble-minded individuals, its height, growth, relations to dentition, character of the distributions, relations to head measurements, comparison by qualitative gradations, measurements on skeletal material, etc., etc. For a study of sub-normal types, this paper deserves to be called a classic.

*The Age of Mental Virility*, by W. A. NEWMAN DORLAND. The Century Co., New York, 1908. 229 p.

This book describes the world's chief workers and thinkers, the period of mental activity, the unusual activity in the young—its acme and duration, what the world might have missed, genius and insanity, and the brain of genius.

*Carla Wenckebach, Pioneer*, by MARGARETHE MÜLLER. Ginn & Co., Boston, 1908. 290 p.

The subject of this biography was for many years well known as the professor of German at Wellesley College. The writer's first motive for preparing this sketch was a desire "to share a precious possession which had come to her through a deep appreciation of an unusual and very vital human being;" and the second, is because this life represents a type of increasing prominence, viz., "that of a woman in whose mental make up sex does not appear to be of prime and decisive importance." Her instincts were intellectual rather than domestic. Among the very many restless German women who, during the past half century, have left their fatherland to seek a larger, freer field, perhaps no one has done more for her people or won more distinction, and none have been less conscious of their own achievement. The work is illustrated by no less than seven portraits which show the subject of the sketch at various stages of life.

*Pestalozzi*, by H. HOLMAN. Longmans, Green & Company, New York, 1908. 322 p.

Long ago Steinmüller wrote, "A teacher without psychology does his work as badly as an old woman doctoring," and Pestalozzi said, "I want to psychologize instruction." This volume seeks to provide the student and teacher with material for thoughtful survey of the principles and practice of one of the greatest world's pioneer educators. The effort is to set forth clearly, what Pestalozzi wrote, thought and did, rather than what the author of this book thinks he said and did; hence it abounds in quotations. In the sixteen chapters he treats the spirit of the times, early years, beginning of work, Pestalozzi as a literary man, his career at Stanz, Burgdorf and Yverdun, the death-song, then treats Pestalozzi as a man and thinker, a teacher of language, form, number, etc., his theories and what he really did, with text-books and references for further reading.

*The Boys' Round Table*, by WILLIAM BYRON FORBUSH and FRANK LINCOLN MASSECK. 6th edition. Frank L. Masseck, Potsdam, N. Y., 1908. 188 p.

This manual of the Knights of King Arthur is a precious message to boys. It contains the history and plan of the order, tells how to conduct a castle, describes a model constitution, the conclave, the first three degrees, the siege perilous, the peerage, form for coronation, for instituting a new castle, suggestive methods, books, pictures, games, music, castles in school, the queen of Avalon, the brotherhood of David, Woodcraft Indians, the captains of ten, and ends with songs, music, apparatus, and price thereof, and a copious ritual. This is without doubt, on the whole, perhaps, the very best organization for boys before and in the early teens.

*A Study in Doctrine and Discipline*, by HENRY W. WILBUR. Friends' Book Association, Philadelphia, 1908. 48 p.

This is an admirable epitome of the general point of view of the Friends or Quakers. It characterizes the inner light and compares it with the Holy Spirit, and tells us their ideas of the ministry, of worship, and the conduct of life.

*The Rural School in the United States*, by JOHN C. HOCKENBERRY. Published by the author, State Normal School, Westfield, Mass., 1908. 124 p.

This is an interesting and careful study of economic and social conditions of present-day rural communities, or a comparison of schools with earlier days, with Prussia, with the city school, and, finally, the picture of the rural school of the future, as the author believes it is to be.

*The Road to Damascus*, By H. A. MITCHELL KRAYS. Small, Maynard & Co., Boston, 1907. 447 p.

This is a novel of unusual interest. It deals in a broad, large way with the sex question, all the important crises in the book turning upon facts and acts about which people will be sure to differ, according to their moral standard. Whatever may be said about the latter, it is a work of great ability, the conversations are wrought out with remarkable skill, and the interest is maintained to the end.

*The Little Brown Brother*, by STANLEY P. HYATT. Henry Holt & Co., New York, 1908. 329 p.

This is a plain story with no ulterior political motive or attempt to point any special moral or plead any special case, because it is based on things the author had seen in the Philippine Islands and is, to a large extent, historical. In the story, pictures of life and conditions on the Islands are abundantly introduced.

*Text-book of School and Class Management*, by FELIX ARNOLD. The Macmillan Co., New York, 1908. 409 p.

The writer first treats of the teacher; self-activity, individuality, rights and duties; then of the principal, following the same captions; then of co-operation between the principal and teacher; its general and special means, approval and disapproval vs. uniform methods, etc. This topic is treated under three heads: instruction, discipline, and supervision. Under the latter head, the factors in efficiency are discussed, both in instruction and discipline. In the second part, the relation between the teacher and child is discussed in the pre-adolescent, adolescent, self-active and individual child, with captions on child's rights. The number of adolescents in the elementary school he finds more than double the number in the High School. They are most numerous in the last two years of the elementary grades and are distributed all through the school grades, but are especially numerous from the fourth year up. Later come chapters on the nature of conduct; its sanction, kinds, development, general and special, etc. On the whole, this is a book "made to pattern"; that is, it gives the impression of having been first deliberately planned as a systematic whole, with the captions wrought out, and then these dry bones are clad with flesh. At any rate, like books thus made, it has nearly every degree of merit in its different parts from highest to lowest. It is, on the whole, a rather abstract and hypermethodic book, gravitating in the treatment of subjects strongly to the merely theoretic and away from concrete modes of treating the various subjects. The author evidently strives above all to be symmetrical, and the writer of this note, in looking over the book and references is by turns now surprised, now instructed, to find references to theoretical treatises he never heard of and to find omissions of things which to him seem essential. This is, by no means, necessarily a negative criticism, but it does show a great incommensurability between two minds, so great that it would be very hard for either to do justice to the other. And

so the writer forbears a more extended review, which he is tempted to make.

*Differential and Integral Calculus*, by DANIEL A. MURRAY. Longmans, Green & Co., New York, 1908. 491 p.

The topics in this book are arranged for primary courses in calculus in which the formal division into differential and integral is deemed necessary. The work is largely made up of matter from the author's Infinitesimal Calculus, although there have been many changes in the treatment of several topics, and additional matter has been introduced.

*A Text-Book of Experimental Chemistry*, by EDWIN LEE. Blakiston's Son & Co., Philadelphia, 1908. 433 p.

While no particular claim to originality is made for this text-book, still it is more than a compilation and strives to embody a clear presentation of the fundamentals of the science, specific directions for laboratory work, with questions and discussions, and application enough to direct observation and to serve as a basis for generalization. It is not designed to take the place of a large, descriptive work, but is vitally related to the classroom.

*A Text-Book of Physics*, edited by A. Wilmer Duff. P. Blakiston's Son & Co., Philadelphia, 1908. 680 p. (Blakiston's Science Series.)

With six associates the author has edited this very impressive work with 511 illustrations. It represents an attempt to prepare a text-book more satisfactory to its editors than any existing one. The field of physics has enormously increased of late, due to many fresh discoveries and new facts, although the capacities of students have probably not increased in any like proportion. The size of the text-book, however, if essential features are presented, must be gradually enlarged. Physics is now so specialized that it was almost inevitable that several collators should combine their work in order to cover the general field. The present book seems to be admirable, therefore, not only for the classroom but for reference.

*Electricity, Sound and Light*, by ROBERT A. MILLIKAN and JOHN MILLS. Ginn & Co., Boston, 1908. 383 p.

This book represents, primarily, an attempt to secure satisfactory articulation of the laboratory and classroom phases of instruction in physics. It is based on the conviction that real insight and grasp of principles are not readily gained unless theory and laboratory work are very closely combined. This is, however, far more than a laboratory manual. It seeks to give a good, logical development of the topics treated, and the method is analytical rather than descriptive and it is assumed that the apparatus required will be found in most laboratories. The work is well illustrated with 250 cuts.

*First Course in Biology*, by L. H. BAILEY and WALTER M. COLEMAN. The Macmillan Co., New York, 1908. 164 p.

This book assumes that the tendency in secondary education is away from the formal, technical completion of separate subjects and toward the development of a workable training in the activities that relate the pupil to his own life. In natural science, the tendency is to attach less importance to botany, zoölogy, and physiology as such, and to lay greater stress upon the processes and adaptations of life as expressed in plants and animals. This tendency is a revolt against the laboratory and the research method of the college, as it has been impressed in the common schools, for it is not unusual for the pupil

to study botany without really knowing plants, or physiology without really knowing himself. Unit courses are taking the place of dry, meaningless, isolated courses as a result of the nature study movement. This volume is an effort to meet the needs of a simple, untechnical text, and its work stands between unorganized nature study of the lower grades and the formal science of advanced courses. It assumes that the work in this field will generally begin in the fall, and the matter is so arranged, but it can be begun at any season of the year. The book is furnished with four or five hundred cuts and these seem to the present reviewer admirably adapted to their purpose. All possible applications, too, are made to daily life. The scale of animate existence is followed from below upward.

*Lesson Stories for Kindergarten Grades*, by LOIS S. PALMER. The Macmillan Co., New York, 1908. 127 p.

This book is the outgrowth of the experience of many years' work with children in the kindergarten of day and Sunday school, and is designed to teach reverence, trust, love, thankfulness, unity, obedience, to arouse the desire for truth, etc. The lessons are by topics and by grades; for instance, the creation story has a memory verse, song, home work, and illustrative study and story material; then follows a lesson treatment with many hints and suggestions.

*Literature in the Common Schools*, by JOHN HARRINGTON COX. Little, Brown & Co., Boston, 1908. 227 p.

This book is the result of five years' experience with teachers in the summer school of the West Virginia University and in teachers' institutes in several states. It is an attempt to meet needs as they arise. Its general nature can be inferred from the headings of its chief chapters, which are as follows: Reading; Literature and Life; Why Study Literature? Criticism; The Distinguishing Marks; The Emotional Element; Imagination; Thought; Form; Application of Tests; Tributaries of the Literary Stream; Presentation in the Primary Grades; The Story in the Upper Grades; A Model Lesson; Course of Study; Extended List for Substitution, Leisure Hours, and Home Reading; Bibliography; For Teachers; List of Publishers; Index of Titles and Authors.

*Composition and Rhetoric*, by CHARLES S. THOMAS and WILL D. HOWE. Longmans, Green & Co., New York, 1908. 509 p.

This work is not to train writers in the finer graces of language, but to enable young students to write more clearly and forcibly. The main stress is placed upon the word, sentence, and paragraph. Practice is placed before rules.

*Extempore Speaking for School and College*, by EDWIN DUBoIS SHURTER. Ginn & Co., Boston, 1908. 176 p.

This book is the result of practice and experience in the classroom and is designed for school and college and adapted to both teachers and students. It deals with the different ways of preparing and delivering addresses, the advantages of extempore speaking, general and special preparation, oral presentation, and types.

*Specimens of Exposition and Argument*, MILTON PERCIVAL, and R. A. JELLIFFE. The Macmillan Company, New York, 1908. 362 p.

This volume, while disclaiming new theories, claims certain practical features that should help those studying exposition and argument. The selections vary in length, in mode of treatment, and the variety of interest is greatly diversified. The new features claimed are the examples of controversy, which shows how opposite sides of

the same question may be handled. There is a good little treatise on introductions and the brief. First, come narrative and descriptive, then the more expository types, illustrated by an essay, describing process. Then the differences between definition and analysis are treated and finally particular types and criticisms.

*Brave Beowulf*, edited by Thos. Cartwright. William Heinemann, London, 1908. 113 p. (Every Child's Library.)

This is the best prose, child's version of this oldest written poem in the Anglo-Saxon language. It is illustrated by eight interesting, colored, full-page illustrations and by a number of wood-cuts. There is a glossary with pronunciation of important, proper names at the end.

*Time in English Verse Rhythm*, by WARNER BROWN. The Science Press, New York, 1908. 75 p. (Archives of Psychology, No. 10, May, 1908.) (Columbia Contributions to Philosophy and Psychology, Vol. XVII, No. 2.)

The methods of studying verse rhythm are by the ear, phonograph, tapping, reaction, subjective, and experimental methods. In this way, the graphic method, and mechanical aids, pitch, intensity and relation, time relations, theories of the metrists and poets, relations as treated by experimentalists, and the general significance of results reached are studied.

*Pride and Prejudice*, by JANE AUSTEN. Edited by Josephine Woodbury Heermans. The Macmillan Co., New York, 1908. 388 p.

This remarkable novel, written in 1796 when its author was not twenty-three years of age, waited fifteen years for a publisher and has had a remarkable vitality. It is here reproduced with her life, with various appreciations, bibliographic references, etc.

*A French Grammar*, by HUGO P. THIEME and JOHN R. EFFINGER. The Macmillan Co., New York, 1908. 411 p.

The design of the authors has not been to write a complete French grammar, but to present things most essential to a general knowledge of French, with plenty of illustrative material, so that the student may derive a maximum of profit by whatever system he is taught. The treatment of subjects is consecutive; verbs, for instance, are treated in detail and together. Composition exercises, conversation drill, vocabularies and French history, all have unique treatment.

*Sudermanns Dramen*, von KARL KNORTZ. G. E. Stechert & Co., New York, 1908. 80 p.

This is perhaps the most drastic and able criticism which this extremely popular dramatist has received in his own country or elsewhere, and is an able and readable book.

*Inquiry in High Places, as revealed in the American-Spanish, Filipino Wars of 1898, 1899 and subsequent years*, by HENRY CLAY KINNE. Pub. by the author, San Francisco, 1908. 294 p.

This is a most scathing indictment and exposure of corruption and iniquity, provided the author's data and conclusions are correct. He seems to have a special hatred of President McKinley.

*Bibliography of Education for 1907*, compiled by James I. Wyer, Jr., and Martha L. Phelps. Gov't Printing Office, Washington, 1908. 65 p. (U. S. Bureau of Education, Bulletin, 1908, No. 3.)

*A Bibliography of Physical Training*, by J. H. McCURDY. G. E. Stechert & Co., New York, 1905. 369 p.

- The Specialist Blight on American Education*, by JAMES P. MUNROE. Rep. from The Popular Science Monthly, Vol. LXXIII, Oct., 1908. 11 p.
- The School City, a New System of Moral and Civic Training*. National City School League, Philadelphia, Boston and Washington, n. d. 44 p.
- First Report of the New York State Probation Commission*, for six months ending December 31, 1907. J. B. Lyon Co., Albany, 1908. 214 p.
- Child Culture*, by NEWTON N. RIDDELL. Child of Light Pub. Co., Chicago, Ill., n. d. 129 p.
- Systematic Study in the Elementary Schools*, by LIDA BELLE EARHART. Published by Teachers College, Columbia University, New York City, 1908. 97 p. (Columbia University Contributions to Education, Teachers College Series, No. 18.)
- Tuberculosis in the United States*. Prepared for the International Congress on Tuberculosis, Washington, 1908. (Department of Commerce and Labor.)
- From Keel to Kite*, by ISABEL HORNIBROOK. Lothrop, Lee & Shepard Co., Boston, 1908. 511 p.
- The Lighted Lamp*, by C. HANFORD HENDERSON. Houghton, Mifflin & Co., Boston, 1908. 418 p.
- The Coming of People*, by CHARLES F. DOLE. Homecrofters Guild of the Talisman, Watertown, Mass., 1897. 299 p.
- Annales de Instrucción Primaria*, Vol. V, May-December, 1907. Marín y Caballero, Montevideo, 1908. 561 p.
- Outlines of Economics*, by JOHN DANIELS. Ginn & Co., Boston, 1908. 28 p.
- Practical Exercises in Physical Geography*, by WILLIAM MORRIS DAVIS. Ginn & Co., Boston, 1908. 148 p. (With atlas.)
- The New Hudson Shakespeare*, edited and revised by Ebenezer C. Black and Andrew J. George. Ginn & Co., Boston, 1908.
- Der Besuch im Karzer*, von ERNST ECKSTEIN and *Das edle Blut*, von ERNST von WILDENBRUCH. With notes, vocabulary and exercises by Charles H. Sanborn. Ginn & Co., Boston, 1908. 239 p.
- Brigitta*, von BERTHOLD AUERBACH. With introduction, notes, exercises and vocabulary, by J. Howard Gore. Ginn & Co., Boston, 1908. 165 p.
- Träumereien an französischen Kaminen-Märchen* von RICHARD von VOLKMANN-LÄNDER, selected, arranged and edited with introduction, notes, exercises and vocabulary, by J. B. E. Jonas and Anne T. Weeden. Ginn & Co., Boston, 1908. 243 p.
- Macmillan Pocket Classics edition of Shakespeare*. The Macmillan Co., New York, 1908.
- The Attica of Pausanias*, edited by MITCHELL CARROLL. Ginn & Co., Boston, 1907. 293 p. (College Series of Greek Authors.)
- Latin Lessons for Beginners*, by DANIEL W. LOTHMAN. Ginn & Co., Boston, 1908. 178 p.
- The Teaching of Elementary Latin*, by FRANKLIN HAZEN POTTER. Benjamin H. Sanborn Co., Boston, 1908. 55 p.

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